MeadWestvaco Corporation
Packaging Resources Group
104 E. Riverside Street
Covington, VA 24426

+1 540.969.5000 T
+1 540.969.5554 F
mwv.com

July 15, 2011

Ms. Susan K. Edwards
Environmental Engineer Sr. - Water Permits
VA DEQ - Blue Ridge Regional Office
3019 Peters Creek Road, Suite C
Roanoke, VA 24019

Dear Ms. Edwards:

Enclosed is an original of the VPDES permit application for the MeadWestvaco of Virginia facility located in Covington, Virginia. With the exception of storm water data, it is believed that all the necessary information is contained within this submittal to constitute a complete application. Storm water data will be submitted once we gather and test storm water from a qualifying event. Over the past few months we have not had a qualifying event due to multiple issues such as the rain event occurring during the middle of the night and during an intense electrical storm, both of which were excluded due to safety concerns; intense short-lived rainfall events with limited runoff and events that occurred within the 72 hour time constraint which has eliminated most opportunities. We have included limited storm water testing data from 2010 permit testing requirements which we will replace when we are able to get a qualifying event.

We would appreciate any consideration of reduced monitoring particularly in regard to our three internal outfalls.

We would also appreciate any consideration you could give allowing us until the 15th to submit monthly data. The 10th deadline at times can be difficult to meet.

Concurrently, I have sent you an electronic copy of the permit application as well.

Sincerely,

Mark C. Allman
SH & E Lead Engineer
Shared Business Support

Table of Contents

Section

A

VPDES Permit Application Addendum

1. **Entity to whom the permit is to be issued:** MeadWestvaco of Virginia Inc.

Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. **Is this facility located within city or town boundaries?** Yes X No ☐

3. **Provide the tax map parcel number for the land where the discharge is located.** -8---A-----1A

4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** 20 mill general; 290 landfill

5. **What is the design average effluent flow of this facility?** 35; 75 hydraulic MGD
   For industrial facilities, provide the max. 30-day average production level, include units:
   3400 Air Dried Tons per day

   In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Yes ☐ No X
   If "Yes", please identify the other flow tiers (in MGD) or production levels:

Please consider the following questions for both the flow tiers and the production levels (if applicable): Do you plan to expand operations during the next five years? Is your facility's design flow considerably greater than your current flow?

6. **Nature of operations generating wastewater:**
   Industrial

   0 % of flow from domestic connections/sources

   Number of private residences to be served by the treatment works: 0

   100 % of flow from non-domestic connections/sources

7. **Mode of discharge:** X Continuous ☐ Intermittent ☐ Seasonal
   Describe frequency and duration of intermittent or seasonal discharges:

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**
   - X Permanent stream, never dry
   - ___ Intermittent stream, usually flowing, sometimes dry
   - ___ Ephemeral stream, wet-weather flow, often dry
   - ___ Effluent-dependent stream, usually or always dry without effluent flow
   - ___ Lake or pond at or below the discharge point
   - ___ Other:

9. **Approval Date(s):**
   O & M Manual July 2007 **Sludge/Solids Management Plan** NA

   Have there been any changes in your operations or procedures since the above approval dates? Yes ☐ No X

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July 12, 2011

Ms. Susan K Edwards
Environmental Engineer Senior
Blue Ridge Regional Office
Department of Environmental Quality
3019 Peters Creek Road
Roanoke, VA 24019

Dear Ms Edwards:

Attached is the authorization to invoice for the public notice information for the VPDES Permit Renewal package for the MeadWestvaco of Virginia facility (Permit VA0003646).

If you have any questions concerning this submittal, please contact me at (540) 969-5862.

Sincerely,

Mark C. Allman
SH & E Lead Engineer
Shared Business Support

MCA/pa

Enclosure

PUBLIC NOTICE BILLING INFORMATION FORM

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in accordance with 9 VAC 25-31-290.C.2:

Agent/Department to be billed: Mark C. Allman

Owner: MeadWestvaco

Applicant's Address: 104 East Riverside Ave

Covington, VA 24426

Agent's Telephone No: 540 969 5862

Authorizing Agent: _____
Signature

Mark C. Allman
Printed Name

Lead Engineer SBS
Title

Facility Name: MeadWestvaco Corp. Packaging Resources Group
Permit No. VA0003646

Please return to:

Susan K. Edwards
Department of Environmental Quality
BRRO-Roanoke, 3019 Peters Creek Road
Roanoke, VA 24019
susan.edwards@deq.virginia.gov

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: S F VA0003646 T/A C D

LABEL ITEMS	
I.	EPA I.D. NUMBER
III.	FACILITY NAME
V.	FACILITY MAILING ADDRESS
VI.	FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X	
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)		X	
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	X		X
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)		X	
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: MeadWestvaco of Virginia, Inc.(Covington Operations)

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 Thomas G. Botkins Jr. Environmental Manager	(540) 969-5547

V. FACILTY MAILING ADDRESS

A. STREET OR P.O. BOX: 3 104 East Riverside Street

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 Covington	VA	24426

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: 5 104 East Riverside Street

B. COUNTY NAME: Alleghany

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 Covington	VA	24426	

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST	B. SECOND
2631 *(specify)* Paperboard Manufacturing	2819 *(specify)* Activated Carbon Manufacturing
C. THIRD	**D. FOURTH**
(specify)	*(specify)*

VIII. OPERATOR INFORMATION

A. NAME	B. Is the name listed in Item VIII-A also the owner?
MeadWestvaco of Virginia, Inc. (Covington Operations)	☑ YES ☐ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box: if "Other," specify.)*			D. PHONE *(area code & no.)*
F = FEDERAL S = STATE P = PRIVATE	M = PUBLIC *(other than federal or state)* O = OTHER *(specify)*	P *(specify)*	A (540) 969-5000

E. STREET OR P.O. BOX
104 East Riverside Street

F. CITY OR TOWN	G. STATE	H. ZIP CODE	IX. INDIAN LAND
Covington	VA	24426	Is the facility located on Indian lands? ☐ YES ☑ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*	D. PSD *(Air Emissions from Proposed Sources)*
9 N VA0003646	9 P Reg No 20328
B. UIC *(Underground Injection of Fluids)*	**E. OTHER** *(specify)*
9 U	9 Reg No 20329 *(specify)*
C. RCRA *(Hazardous Wastes)*	**E. OTHER** *(specify)*
9 R	9 VAN040070 *(specify)* General Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

This facility manufactures bleached kraft paperboard and activated carbon.

Paperboard is manufactured through a number of processess. Raw wood is delivered to the facility as roundwood or in chip form. Roundwood is debarded and chipped. Wood chips are the converted into pulp through a kraft digestion process. Pulp is then washed, bleached, and converted into paperboard.

Sawdust is converted through a number of chemical processes into activated carbon.

(Please note we have attached a listing of facility permits.)

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Gregory C. Hansrote, VP - Covington Operations	Gregory C. Hansrote	7/13/11

COMMENTS FOR OFFICIAL USE ONLY

C

Permits
MeadWestvaco of Virginia, Inc

Water

VPDES Permit No. VA 0003636
General Nutrient Permit VAN040070

Air

Registration Number 20328

Prevention of Significant Air Quality Deterioration Permit Dated 10/07

Permit to Modify and Construct Dated 2/25/08

Title V Permit Dated 2/25/08

BART Permit 2/09

Reasonable Progress Permit 5/4/2011

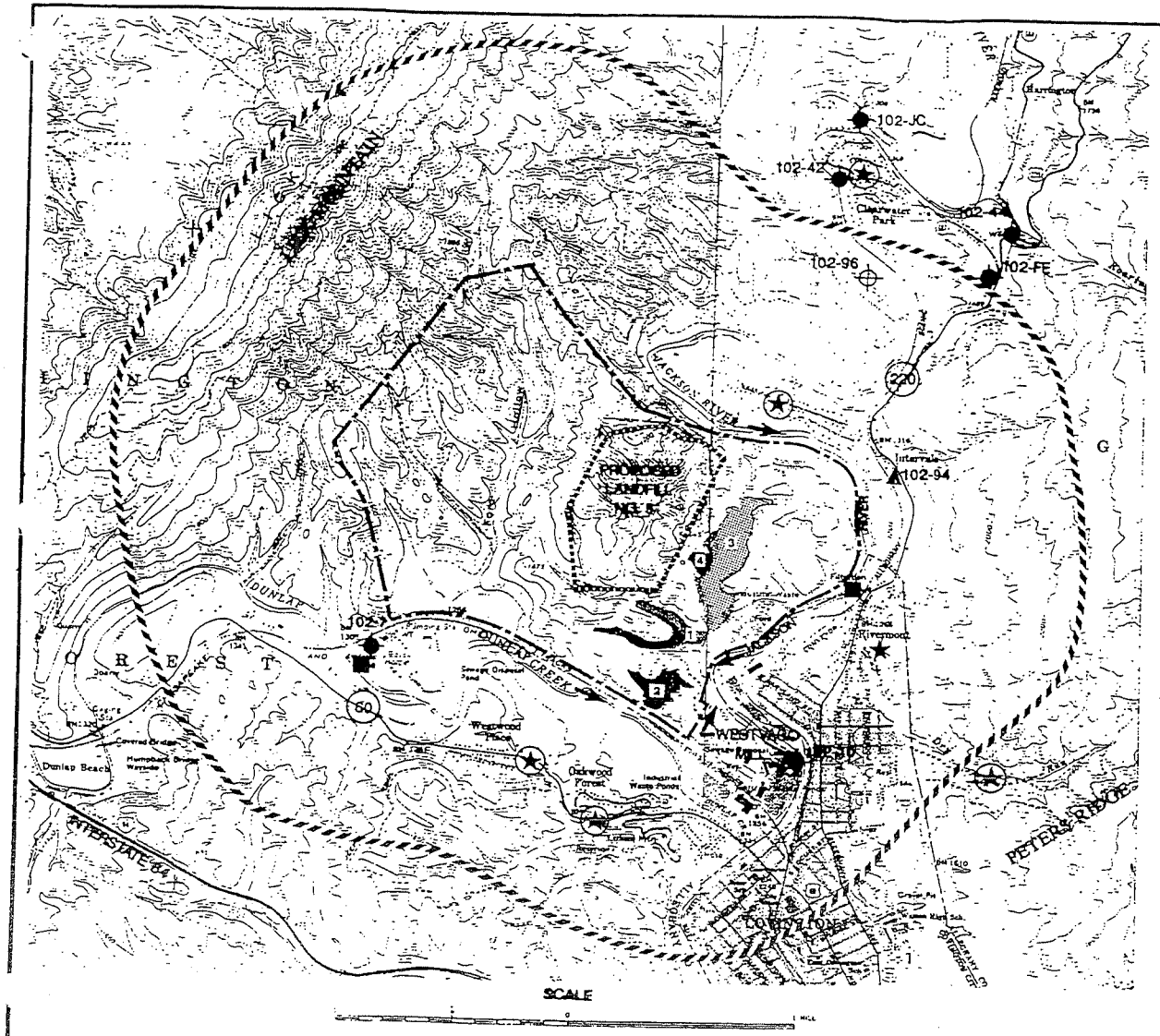
Solid Waste

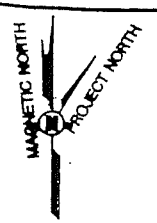
VA Solid Waste Facility Permit No. 413
VA Solid Waste Facility Permit No. 414
VA Solid Waste Facility Permit No. 394
VA Solid Waste Facility Permit No. 522
VA Solid Waste Facility Permit No. 595

MeadWestvaco Virginia Corporation Specialty Chemicals Division Registration 20329

Air

Catalyst plant - March 8, 2005
Extruder plant - October 13, 2008
Pilot plant – January 26, 2010
Wood plant – April 1, 2009
Title V – dated February 5, 2009





LEGEND

- WESTVACO PROPERTY BOUNDARY
- SOLID WASTE MANAGEMENT FACILITY BOUNDARY
- PERMITTED SOLID WASTE MANAGEMENT UNIT
- PROPOSED SOLID WASTE MANAGEMENT UNIT
- 1 MILE PERMIETER AROUND FACILITY
- PUBLIC OR PRIVATE SURFACE WATER INTAKE
- 102-13 KNOWN WATER WELL LOCATION/ VA-WCB ID NO. (WELL RECORD AND POSITION ON FILE AT VA-WCB)
- 102-96 KNOWN WATER WELL LOCATION/ VA-WCB ID NO. (POSITION BUT NO WELL RECORD ON FILE AT VA-WCB)
- PRIVATE SPRING
- AREA SERVED BY COVINGTON/ALLEGHANY COUNTY PUBLIC WATER SYSTEM
- AREA SERVED BY COVINGTON/ALLEGHANY COUNTY PUBLIC WATER SYSTEM AND PRIVATE WELLS KNOWN TO BE PRESENT IN AREA (WELL USAGE UNKNOWN)

REF. BASE MAP: USGS QUADRANGLE MAPS
7.5 MINUTE SERIES (TOPOGRAPHIC)
COVINGTON, VA PHOTOREVISED 1984
CALLAGHAN, VA PHOTOINSPECTED 1977

DRAWN BY	KKB	DATE 12-16-94
CHECKED BY	RKT	DATE 12-16-94
APPROVED BY	D.JH	DATE 12-16-94
CADFILE		

PRIVATE & PUBLIC WATER SUPPLY LOCATION MAP
PART A PERMIT APPLICATION
WESTVACO-SOLID WASTE DISPOSAL FACILITY
COVINGTON, VIRGINIA

STS Consultants Ltd.
Consulting Engineers

STS PROJECT NO. 26218-R
STS PROJECT FILE
SCALE SHOWN
SHEET NO. FIGURE 8

Section

B

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
VA0003646

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM **2C** NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
003	37	47		79	59		Jackson River
301	NA	NA		NA	NA		Internal Outfall
302	NA	NA		NA	NA		Internal Outfall
303	NA	NA		NA	NA		Internal Outfall

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
003	Woodyard	0.4 MGD	See attached document for all		
	Unbleached Pulp Mill	1.3 MGD			
	Bleached Pulp Mill	13.2 MGD			
	Paper Mill	8.1 MGD			
	Recovery Operations	3.8 MGD			
	Power Generations	1.1 MGD			
	Carbon Plant	1.2 MGD			
	Filtered Water	0.8 MGD			
	Fly Ash Clarifiers	2.0 MGD			
	Solid Waste Leachate	0.3 MGD			
	Sanitary Sewage	0.2 MGD			
	Evaporation	-0.5 MGD			
	Stormwater	0.2 MGD			
	003 Discharge	32.1 MGD			
301, 302, 303	A Unit Bleach Room	5.6 MGD	See attached document		
	B Unit Bleach Room	5.2 MGD	See attached document		
	C Unit Bleach Room	2.4 MGD	See attached document		
	Note Flow data based on 2010				
	data as well as 2010 total rainfall.				

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ YES (*complete the following table*) ☑ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (*specify average*)	b. MONTHS PER YEAR (*specify average*)	a. FLOW RATE (*in mgd*)		B. TOTAL VOLUME (*specify with units*)		C. DURATION (*in days*)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☑ YES (*complete Item III-B*) ☐ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☑ YES (*complete Item III-C*) ☐ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (*list outfall numbers*)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	
3400	Air Dried Tons/d	Off Machine Bleached Kraft Paperboard (permitted)	003
875	Air Dried Tons/d	Bleached Tons (permitted)	301
950	Air Dried Tons/d	Bleached Tons (permitted)	302
1320	Air Dried Tons/d	Bleached Tons (permitted)	303

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect your discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
VA0003646

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Acetaldehyde Carbon Disulfide Cresol Formaldehyde Vanadium	Each of these compounds, are or have the potential to be coincidentally manufactured in the pulping process. It is possible for small amounts of these compounds to enter the waste treatment plant.	Vinyl Acetate	Polyvinyl acetate is an additive used in the paper mill. This material is purchased with less than deminimis level of residual vinyl acetate monomer present. It is possible for vinyl acetate to enter the waste treatment plant.

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☑ YES (*list all such pollutants below*) ☐ NO (*go to Item VI-B*)

Many of the compounds listed in Item VC are or may be coincidentally manufactured as intermediates or impurities through the processing of wood performed at the facility or through combustion of fuels. Many of the materials used at the site possibly contain small amounts of the compounds listed.

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☑ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

Chronic testing for both Ceriodaphnia dubia and Pimephales promelas are performed annually as required under condition a Part I B 13 of the existing permit. Results of those tests have been reported in accordance with the permit.

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
MeadWestvaco Safety Health and Environmental Laboratory	965 Capstone Dr. Suite 219 Miamisburg,Ohio, 45342	937/865-5527	Form 2c Pollutants
Pace Analytical	1700 Elm Street Minneapolis, MN 55414	612/607-1700	2,3,7,8 TCDD
EA Engineering Science and Technology	15 Loveton Circle, Sparks, MD 21152	410/771/4950	Biological Toxicity Testing

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Gregory C. Hansrote VP Covington Operations	(540) 969-5000
C. SIGNATURE	D. DATE SIGNED
Greg C Hansrote	7/13/11

DESCRIPTION OF WATER DISCAHRGES

Outfall 003

Facility Wastewater Treatment Plant Discharge

Wastewater Treatment Plant

The wastewater treatment plant is equipped with two mix tanks, a cooling tower, three primary clarifiers, two plug flow aeration basins, two complete mix aeration basins, two final clarifiers, two sludge belt presses, two sludge screw presses, a phosphate removal system, and a sludge thickener.

During normal operation of the wastewater treatment plant, any of these units may be in or out of service for maintenance or operational reasons. A process flow diagram of the wastewater treatment plant is attached.

Wastewater Collection

Process wastewater from the facility and stormwater collected on the industrial site are collected and treated within the facility wastewater treatment plant. Process wastewater consists mainly of water from the woodyard lagoons, carbon plant, unbleached pulp mill, recovery operations, solid waste leachate, bleached pulp mill, paper mill, power generation, sanitary sewage, filtered water plant and the flyash collection system.

The process wastewater is either collected throughout the mill at various pump stations or flows by gravity directly to the waste treatment plant. Major pump stations are equipped with bar screens (Code 1 – T) to remove floating or large material from the wastewater. In the event of an overflow, the East Side pump station overflow can combine with the treated wastewater from the final clarifiers prior to discharging to the river. The flyash decant from the flyash settling basins can be diverted to the mix tanks prior to primary clarification, to the mix box prior to biological treatment, or the end of the biological treatment system prior to final clarification, directly through the 003 outfall.

Primary Clarification

The process wastewater is directed into two mix tanks, where it is blended (Code 1-O) and pH neutralized (Code 2-K). The plant typically uses lime, caustic and sulfuric acid for pH neutralization. The flow from the mix tanks passes through traveling screens (Code 1-T) which remove any additional floating or large materials not removed by the bar screens. After leaving the mix tanks, the wastewater flows into the primary clarifiers. The facility is equipped with three primary clarifiers.

In the primary clarifiers solids are settled (Code 1-U) and removed through the sludge dewatering system. A wastewater stream from the carbon plant is processed separately until the point of primary clarification. The stream is acidic and rich in phosphoric acid. The stream is sent to the phosphate removal system. The phosphate removal system blends (Code 1-O) the acid stream with lime to both neutralize (Code 2-K) and precipitate (Code 2-C) excess phosphorus. The overflow from the phosphate removal system is then sent to the primary clarifiers and combined with the other facility wastewater.

Temperature Control

Most of the clarified water from the primary clarifiers flows to a cooling tower. The remaining water flows directly to biological treatment. The cooling tower is needed to control the wastewater temperature prior to biological treatment. The cooled water flows into a mix box, where nitrogen is added in the form of ammonia and phosphorus may be added, if necessary, in the form of phosphoric acid. Nitrogen and phosphorus are critical nutrients for the biological system and must be maintained at adequate levels to ensure proper operation of the wastewater treatment plant. A defoamer may also be used at any point to reduce foam formation. The wastewater is then combined with a recycle stream from the final clarifier system prior to flowing into the biological treatment system.

Biological Treatment

The biological treatment system uses activated sludge (Code 3-A) to reduce the organic content of the wastewater. The wastewater is split between four plug flow aeration basins. The plug flow region uses air and/or elemental oxygen to provide the necessary oxygen for the process. The wastewater flows from the plug flow aeration basins into two coarse bubble, complete mix aeration basins (Code 3-A) to provide additional retention time for the biological process. The wastewater then flows to the two final clarifiers.

Final Clarification

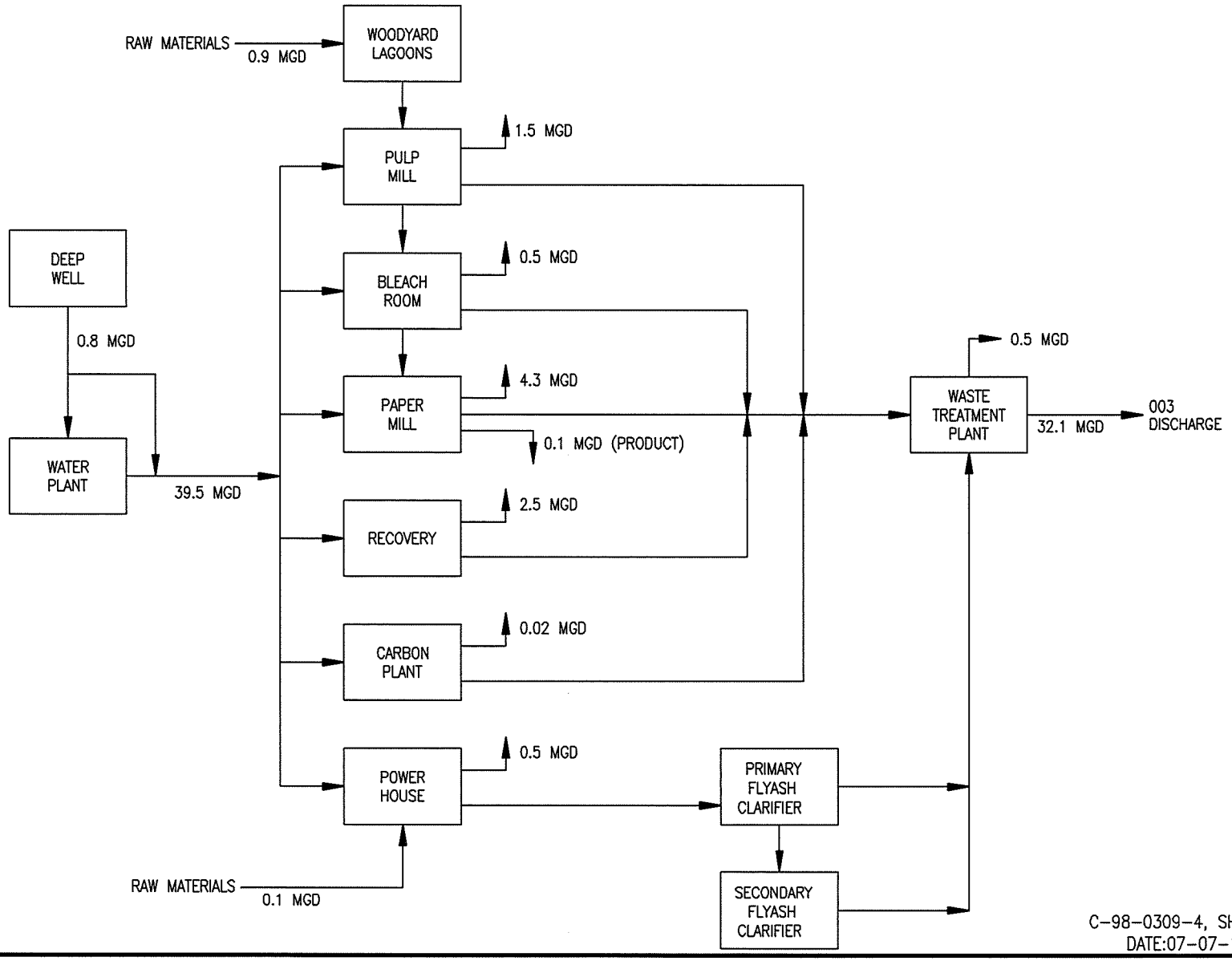
The final clarifiers (Code 1-U) serve two purposes. First, the final clarifiers settle suspended solids prior to discharging the final effluent to the Jackson River. Second, the final clarifiers return activated sludge to the mix box to combine with fresh wastewater. A polymer may be used to aid settling of the activated sludge. A portion of the returned activated sludge is sent to the sludge removal system to remove excess sludge from the system. A defoamer may be used to reduce foam formation. The treated wastewater is then discharged (Code 4-A) to the Jackson River through a diffuser that spans the width of the river. An effluent oxygenation system is in place and can be operated as needed to maintain DO levels in the river. A side stream oxygenation system is also available to be used in emergency conditions to protect river water quality.

Sludge Removal

The first part of the sludge removal system is the sludge thickener. The sludge thickener combines sludge from the primary clarifiers and the final clarifiers (Code 5-L). The sludge is then pumped to two twin belt presses (Code 5-U) and/or two screw presses (Code 5-R) for dewatering. The sludge is combined with chemical agents to aid in dewatering. The dewatered sludge is then disposed of in an onsite landfill. (Code 5-Q) Future plans of sludge disposal may include beneficial uses such as landfill cover material, a fuel source for onsite boilers and agricultural uses.

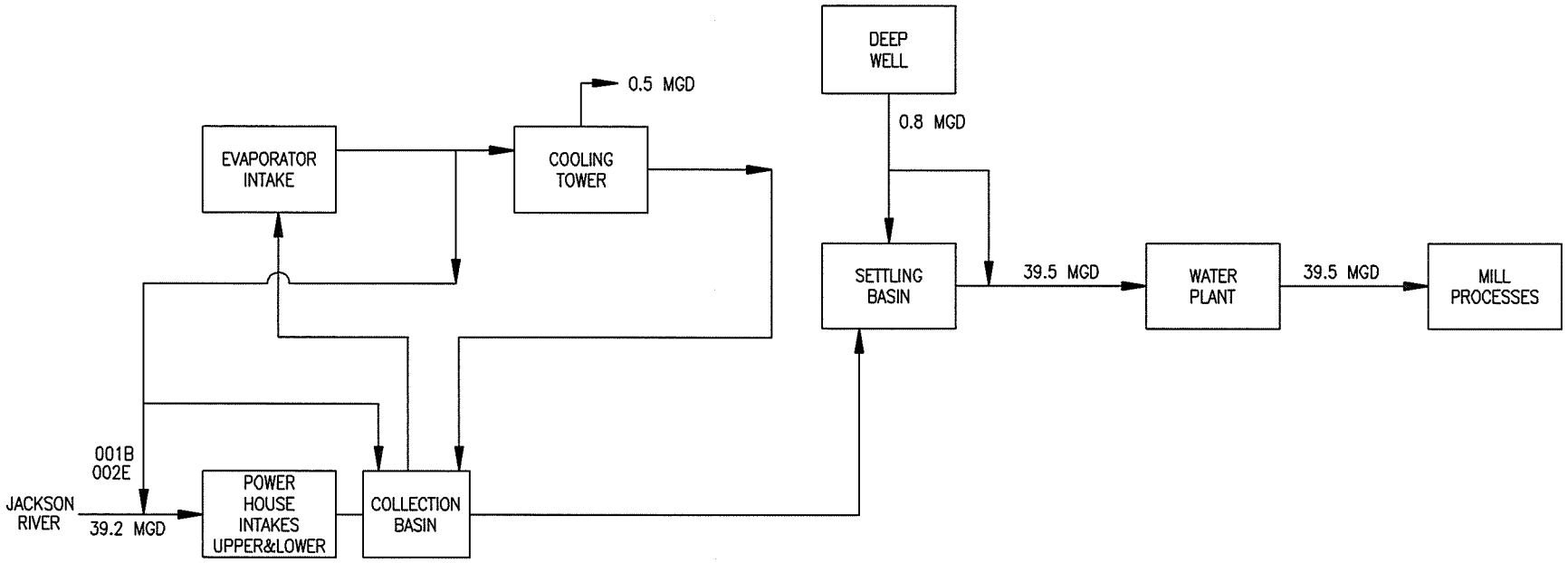
The attached diagram from Section 1 identifies the outfalls for the process wastewater.

PROCESS WATER FLOW

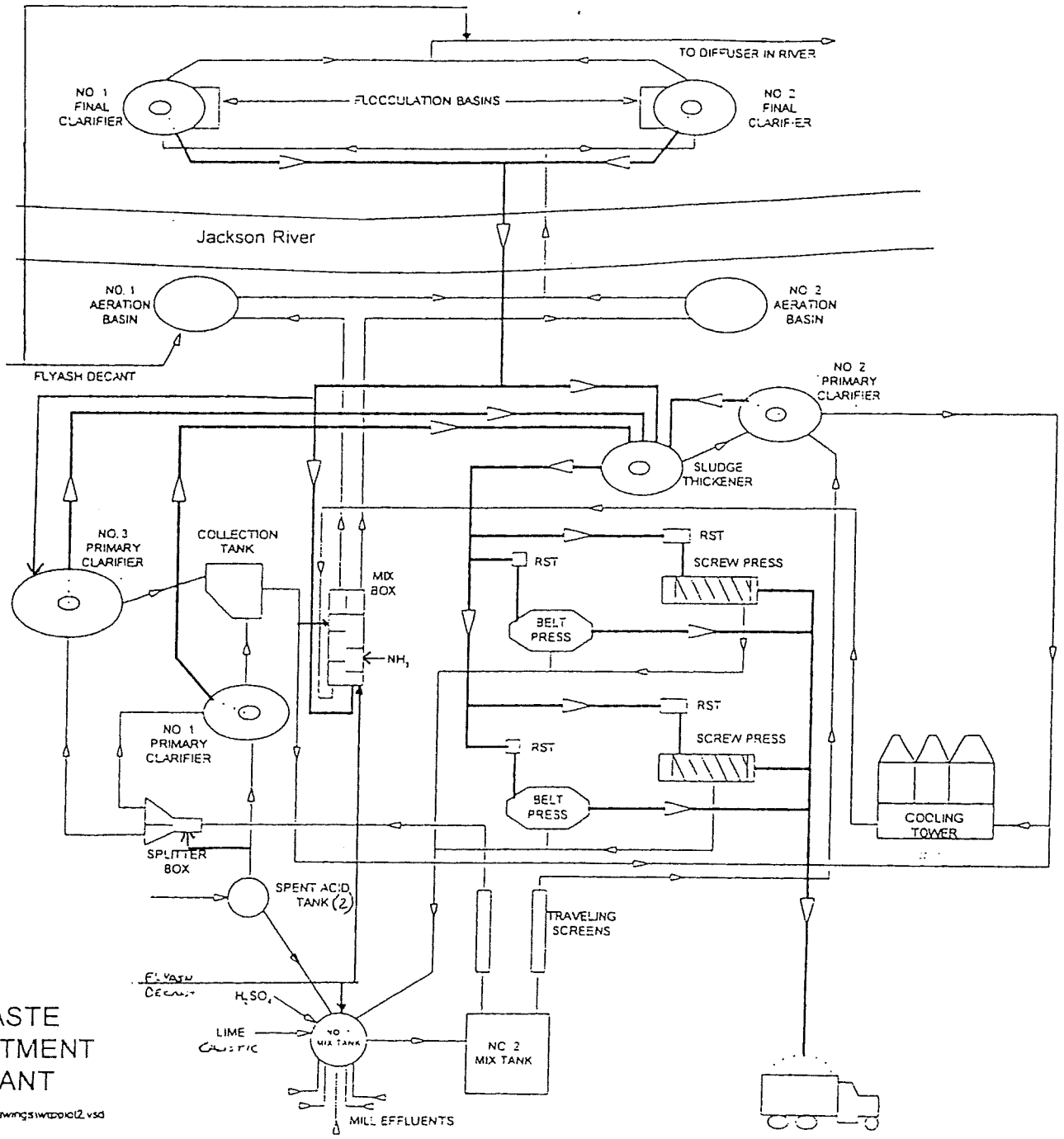


C-98-0309-4, SHT.2 REV. 4
DATE:07-07-11 BY:MES

RAW WATER PROCESS FLOW



C-98-0309-4, SHT.1 REV. 5
DATE:07-08-11 BY:MES



WASTE TREATMENT PLANT

c:\visio\drawings\wtpplot2.vsd

WASTE TREATMENT PLANT EQUIPMENT INFORMATION

The following equipment is used in the Waste Treatment Plant operation. The sizes of each major piece of equipment are approximations of the volumes based upon the dimensions of the various units. The retention times are calculated based upon the average flows for the year 2010.

Waste Treatment Unit	Volume (Gallons)	Retention Time (Hours)
No. 1Mix Tank	53000	0.08
No. 2 Mix Tank	53000	0.08
No. 1 Primary Clarifier	930000	3.47
No. 2 Primary Clarifier	930000	3.47
No. 3 Primary Clarifier	2800000	3.48
No. 1 Aeration Plug Flow Basin	1400000	1.27
No. 2 Aeration Plug Flow Basin	1400000	1.27
No. 1 Aeration Complete Mix Basin	1075000	0.98
No. 2 Aeration Complete Mix Basin	1075000	0.98
No. 1 Flocculation Basin	220000	0.20
No. 1 Final Clarifier	5115000	7.64
No. 2 Flocculation Basin	220000	0.20
No. 2 Final Clarifier	5115000	7.64
Thickener	150000	1.53
No. 1 Spent Acid Tank	9400	0.50
No. 2 Spent Acid Tank	9400	0.50

Facility Environmental Projects

The following is a summary of key environmental projects that the facility has completed during the term of the current VPDES permit. These projects include upgrades within the process to reduce organic loading to the waste treatment plant, enhancements to improve downstream water quality as well as improvements made to the waste treatment plant to improve the overall treatment process.

New Belt Press. One of the belt presses used for sludge dewatering during periods of heavy demand and periods of outages of the screw presses was replaced. This improved the quality of sludge generated for disposal.

The facility in 2007 committed to meet nutrient limits as defined by Chesapeake Bay Tributary Strategies.

Phosphorus Reduction Project. A number of projects have been completed and more are scheduled to reduce the level of phosphorus discharge from the facility. These projects have been designed to allow for significantly improved treatment of phosphorus and better control of that treatment. These projects include process changes, increased reliability and improved control of the treatment system.

Replaced fill material in kind to improve and maintain WTP Cooling Tower efficiency.

Cleaned process lines (industrial hydroblast) to improve and maintain hydraulic capacity.

Upgraded main WTP Pump Station controls to dampen swings on hydraulic flows during surge events.

Operational data transmitted into Facility PI System to share information between departments and have troubleshooting tool for trending, as well as to store data.

DESCRIPTION OF BLEACH PLANT DISCHARGES

The bleaching process at MeadWestvaco's Covington facility consists of three bleach lines. They are identified as A, B, and C Bleach Units. Elemental Chlorine Free (ECF) bleaching is utilized by all three lines. Hardwood, softwood, and recycled pulp fibers may all be bleached by any of the three lines. The waste water generated by the bleach lines are identified as internal outfalls in the current VPDES permit and denoted as internal outfalls 301, 302, and 303.

The bleaching sequence used at the facility consists of a chlorine dioxide addition stage followed by an extraction stage and then either one or two additional chlorine dioxide stages depending on the particular bleach line. In the chlorine dioxide, or D, stages, chlorine dioxide is applies to the pulp and acts to chemically remove the lignin residing with the pulp. The pulp then is sent to the extraction, or E, stage where sodium hydroxide is applied to extract and remove the lignin from the pulp. The last stage(s) are chlorine dioxide stages where chlorine dioxide is applied again to complete the bleaching process and to achieve the proper quality prior to manufacture of the paperboard.

Elemental oxygen, hydrogen peroxide, or other non-chlorine bleaching agents may also be added at any stage to further oxidize the lignin. After each stage of bleaching the pulp is washed and the filtrate is either re-used or sent to the waste treatment plant for treatment.

The following provides more information with regard to each of the bleach lines and provides additional details with regard to the sampling that is performed.

Internal Outfall 301 – A Unit Bleach Line

A Unit Bleach Line can process hardwood and recycled pulps, but the majority of the pulp is softwood. The current permit requires that weekly chloroform analysis be performed and that monthly dioxin and chlorinated phenolics analysis be performed. MeadWestvaco requests that the data be reviewed to determine if any opportunities exist to qualify for reduced monitoring.

Normally filtrates from the bleaching stages are sent to the Wastewater Treatment Plant through three different pipelines. For the purposes of monitoring, the following methodology for sampling and analysis is utilized. For chlorinated phenolics, dioxin and furan sampling, filtrates will be collected separately and will be flow composited and analyzed as one sample. For chloroform sampling, filtrates will be collected separately. They will then be composited and analyzed to segregate acidic (chlorine dioxide) stages and caustic (extraction) stages. These values will then be added and reported as one value as required. The following diagram illustrates the sampling locations for the bleach line.

Internal Outfall 302 – B Unit Bleach Line

B Unit Bleach Line can process softwood and recycled pulps, but the majority of the pulp is hardwood. The current permit requires that weekly chloroform analysis be performed and that monthly dioxin and chlorinated phenolics analysis be performed. MeadWestvaco requests that the data be reviewed to determine if any opportunities exist to qualify for reduced monitoring.

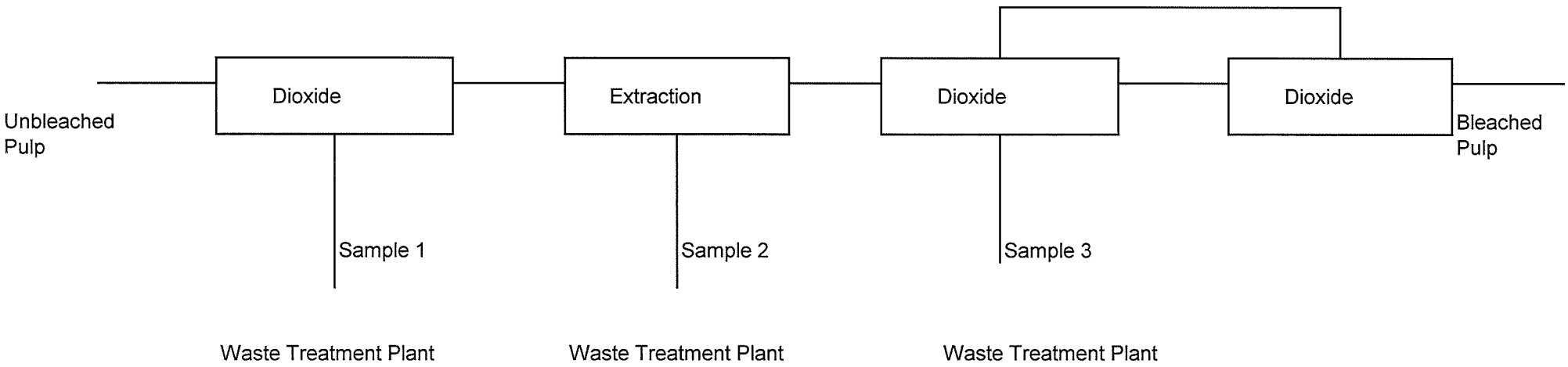
Normally filtrates from the bleaching stages are sent to the Wastewater Treatment Plant through three different pipelines. For the purposes of monitoring, the following methodology for sampling and analysis is utilized. For chlorinated phenolics, dioxin and furan sampling, filtrates will be collected separately and will be flow composited and analyzed as one sample. For chloroform sampling, filtrates will be collected separately. They will then be composited and analyzed to segregate acidic (chlorine dioxide) stages and caustic (extraction) stages. These values will then be added and reported as one value as required. The following diagram illustrates the sampling locations for the bleach line.

Internal Outfall 303 – C Unit Bleach Line

C Unit Bleach Line can process softwood and recycled pulps, but the majority of the pulp is hardwood. The current permit requires that weekly chloroform analysis be performed and that monthly dioxin and chlorinated phenolics analysis be performed. MeadWestvaco requests that the data be reviewed to determine if any opportunities exist to qualify for reduced monitoring.

Normally filtrates from the bleaching stages are sent to the Wastewater Treatment Plant through three different pipelines. For the purposes of monitoring, the following methodology for sampling and analysis is utilized. For chlorinated phenolics, dioxin and furan sampling, filtrates will be collected separately and will be flow composited and analyzed as one sample. For chloroform sampling, filtrates will be collected separately. They will then be composited and analyzed to segregate acidic (chlorine dioxide) stages and caustic (extraction) stages. These values will then be added and reported as one value as required. The following diagram illustrates the sampling locations for the bleach line.

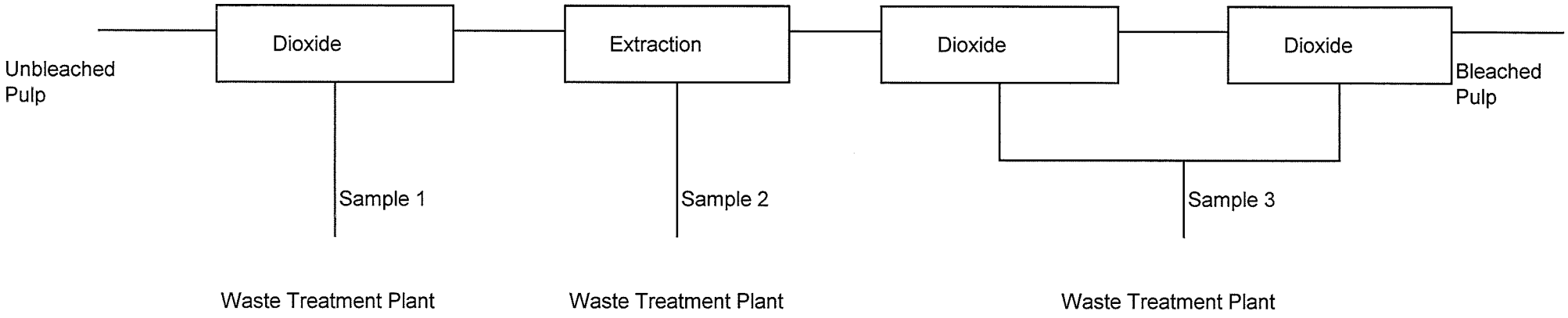
A Unit Bleach Line



Dioxin, Furan and Chlorinated Phenolic Sampling. Collect samples from each sample point. Flow composite samples and perform one analysis per monitoring period.

Chloroform Sampling. Collect samples from each sample point. Flow composite samples and analyze a combined Sample 1 and Sample 3 and analyze Sample 2 independently per monitoring period.

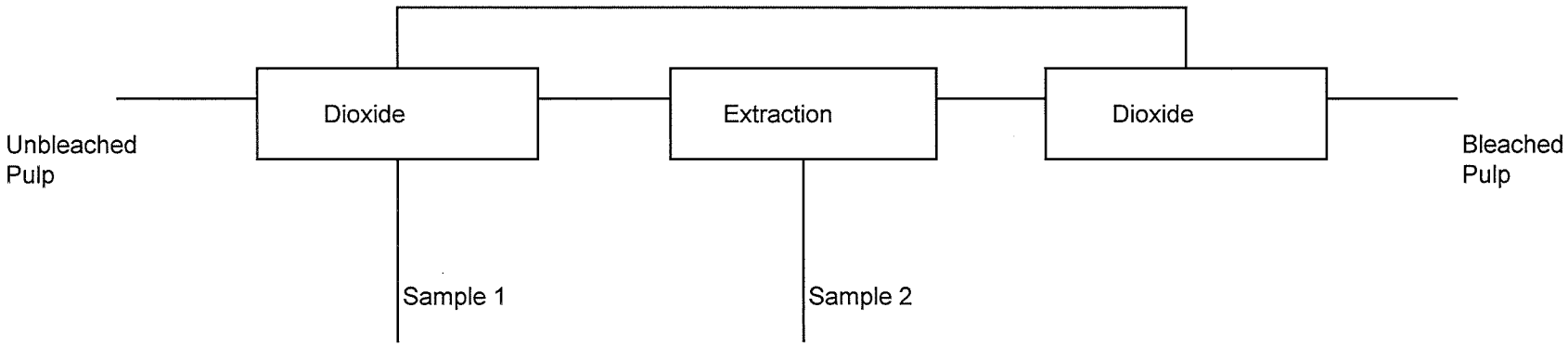
B Unit Bleach Line



Dioxin, Furan and Chlorinated Phenolic Sampling. Collect samples from each sample point. Flow composite samples and perform one analysis per monitoring period.

Chloroform Sampling. Collect samples from each sample point. Flow composite samples and analyze a combined Sample 1 and Sample 3 and analyze Sample 2 independently per monitoring period.

C Unit Bleach Line



Dioxin, Furan and Chlorinated Phenolic Sampling. Collect samples from each sample point. Flow composite samples and perform one analysis per monitoring period.

Chloroform Sampling. Collect samples from each sample point. Flow composite samples and analyze a combined Sample 1 and analyze Sample 2 independently per monitoring period.

Biocide Usage

The provisions of 40 CFR 430.24(d) require that effluent limitations be included for facilities that use pentachlorophenol or trichlorophenol as biocides in the process. This facility does not use either of these compounds as biocides.

New Boiler Project 2011

MeadWestvaco Corporation (MWV) owns and operates a Kraft pulp and paper mill in Covington, Virginia. MWV is proposing to construct and operate a new cogeneration unit at this existing facility.

The new unit will consist of a bubbling fluidized bed (BFB) boiler rated for 640,000 pounds per hour steam with a maximum heat input capacity of 987 MMBtu per hour. The unit will be primarily fueled by biomass supplemented by Waste Water Treatment Plant (WWTP) residuals. Natural gas will be used for startup and flame stabilization. Air emissions will be controlled by an advanced suite of pollution control technologies including non-selective catalytic reduction to minimize nitrogen dioxide (NOx) emissions, a fabric filter to limit particulate emissions, and additional controls for hazardous air pollutants (HAPs).

The proposed project will also include several pieces of ancillary equipment including:

☐ Biomass fuel supply ;

☐ Material storage and handling;

☐ Ash handling equipment;

☐ Steam turbine generator rated at 70-80 MW_e;

☐ Multi-cell cooling tower;

☐ Emergency diesel generator; and

☐ Emergency diesel fire water pump.

In conjunction with the installation of the new unit, operation of the existing coal-fired Boiler 6 will be reduced and limited to firing natural gas. The existing coal/biomass-fired Boiler 7 will be retired. In addition to the biomass boilers and electric generation facilities, MWV also plans to alter certain piping and equipment and add two new storage tanks. The pulping throughput capacity will remain within the volume currently permitted.

Fuel

The new unit will burn clean woody biomass materials and will not burn any chemically treated wood. Clean woody biomass would include non-chemically treated wood and wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sander dust, wood chips, scraps, slabs, millings, shavings, processed pellets made from wood or other forest residues, switchgrass, and other similar fuels. The project will utilize biomass material already generated on site by the facility woodyard, biomass generated from other MWV woodyards, improved collection of harvest residue from logging operations, and residues generated from existing sawmill operations. The new unit will also burn WWTP residuals rated at 390 wet TPD. This material is generated on site and is managed solely within the control of MWV. It consists of residual biomass material generated in the WWTP.

Existing Unit 6 will no longer burn coal, but will be converted to natural gas and operate at a very low annual capacity factor.

2.1.2 Biomass Fuel Supply System

Approximately 1,600 wet TPD of biomass fuel will be delivered to the power plant site by trucks. Biomass fuel trucks will be weighed on existing incoming and outgoing scales at the guard gate serving the manufacturing plant. Biomass fuel trucks will be unloaded using one (1) existing and one (1) new hydraulic end dumpers. The existing woodyard generates approximately 800 wet TPD of biomass fuel. The total biomass fuel rate will be processed by the new fuel supply system. The total biomass fuel flow rate will be hogged and conveyed to a new biomass fuel storage pile using an automated fuel stacker system. The biomass fuel storage pile will inventory approximately twelve (12) days fuel supply, or a fuel volume of approximately 4 million ft_3.

2.1.3 Bubbling Fluidized Bed Boiler

BFB technology is state-of-the-art combustion technology for various biomass fuels and bio-solids. A BFB boiler burns the fuel in and above a fluidized bed of inert material. The large heat capacity of the fluidized bed maintains combustion and evens out fluctuations caused by varying fuel quality.

2.1.5 Ash Handling

Boiler ash contains both bed material and ash from the boiler fuel. Ash handling is divided into two systems: bottom ash and fly ash.

2.1.5.1 Bottom Ash

Bed ash and coarse material is removed from the bed in dry phase. When fuel is burned the ash is converted into fine dust, which escapes from the furnace with the flue gas flow. Stones and other coarse material remain at the bottom and are removed by the bottom ash removal system. The bottom ash system is equipped with a sieving system for bed material removed by the bottom ash system. The sieve makes it possible to recycle the fine fraction of the bottom ash back to the boiler, thus decreasing the consumption of virgin bed material. The ash flow from the ash drag chain conveyor is taken to the sieve and the reject is conveyed to bottom ash container. The fine fraction is blown to the furnace with a pneumatic conveying system.

2.1.5.2 Fly Ash

When fuel is burned the ash is converted into fine dust, which escapes from the furnace with the flue gas flow as fly ash. Fly ash is collected from the second pass and third pass conical ash hoppers and from the pulse jet fabric dust hopper.

Water Systems

Management of corrosive products and scale producing elements in the boiler feed water system will be accomplished at the deaerator and in the steam condensate chemical treatment systems. Boiler feed water will be supplemented in the condenser hotwell with demineralized water from the existing manufacturing facility to replace system losses. It is expected that the facility will generate approximately 250 gpm daily. This comes from losses to the water makeup system, packing water to pumps, cooling tower blowdown and water makeup to air pollution control equipment.

Sanitary sewage will be discharged to the Covington city treatment system.

Two stormwater retention ponds capable of accommodating a 25-year rainfall event from the biomass power plant will be provided. Discharge from the storm water retention pond will be assimilated into the waste water treatment plant serving the existing manufacturing facility. This will not result in a material change to the operation of the existing waste water treatment plant. This water would be routed to the wastewater treatment plant subsequent to the rainfall event in order to minimize hydraulic impacts to the plant. The maximum flow would be 500 gpm.

Storm water from the biomass storage area would flow to outfall number 9 while flow from the new boiler complex would flow to outfall number 13.

The project will install a cooling tower to ensure that heat loading to the existing mill systems do not increase beyond current levels. The blow down from the tower will be routed to mill systems to displace filtered water, but could be routed to the wastewater treatment plant directly.

The fiberline projects include the installation of two storage tanks, a pulp storage tank and a black liquor storage tank. The black liquor storage tank will be equipped with full secondary containment in accordance with Best Management Practices requirements. There are no other components of the project that would result in material changes to the waste water treatment system.

Section

C

Pollutant Data

Form 2C

The information included in this section pertains to sampling required for the facility waste water outfall, denoted as Outfall 003. Information that is included in this section represents data collected within the parameters set forth in the 2C instructions.

Information that is identified with the "<" symbol followed by a numerical value indicates that the sample contained less than a detectable amount of the particular compound. The numerical value provided represents the analytical detection limit for the particular compound. In these cases, the mass loading values for that compound are calculated based upon the flow for the day(s) that samples were collected and the detection limit.

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): VA0003646

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 003

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)	48.2	15.2	30.29	8.91	20.48	5.57	207	mg/l	klb/d			
b. Chemical Oxygen Demand (*COD*)	323	39714	NA	NA	234	28488	12	mg/l	kg/d			
c. Total Organic Carbon (*TOC*)	60.1	7387	NA	NA	NA	NA	1	mg/l	kg/d			
d. Total Suspended Solids (*TSS*)	55	18.53	40	12.08	26.69	7.369	52	mg/l	klb/d			
e. Ammonia (*as N*)	0.85	105	0.21	26	0.07	8.52	52	mg/l	kg/d			
f. Flow	VALUE 40.4		VALUE 35.28		VALUE 32.14		365	na	mgd	VALUE		
g. Temperature (*winter*)	VALUE 35.83		VALUE 34.53		VALUE 33.62		89	°C		VALUE		
h. Temperature (*summer*)	VALUE 36.67		VALUE 35.42		VALUE 35.25		93	°C		VALUE		
i. pH	MINIMUM 7.12	MAXIMUM 7.68	MINIMUM 7.30	MAXIMUM 7.53			365	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCEN-TRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X		<0.1/<0.5	<QL					2	mg/l	kg/d			
b. Chlorine, Total Residual		X	<0.01	<QL					1	mg/l	kg/d			
c. Color	X		270	36174			228	27757	12	mg/l	kg/d			
d. Fecal Coliform	X		2	NA					1	N/C ml				
e. Fluoride (16984-48-8)	X		0.3	37					1	mg/l	kg/d			
f. Nitrate-Nitrite (*as N*)	X		<0.1	<QL	<0.1	<QL	<0.1	<QL	52	mg/l	kg/d			

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		5.45	673	4.63	562	3.33	405	52	mg/l	kg/d			
h. Oil and Grease	X		<5	<QL					1	mg/l	kg/d			
i. Phosphorus (as P), Total (7723-14-0)	X		3.90	509	1.42	187	0.58	71	52	mg/l	kg/d			
j. Radioactivity														
(1) Alpha, Total	X		< 2.51	< QL					1	pCi/l	kg/d			
(2) Beta, Total	X		< 4.02	< QL					1	pCi/l	kg/d			
(3) Radium, Total	X		< 0.994	< QL					1	pCi/l	kg/d			
(4) Radium 226, Total	X		< 0.613	< QL					1	pCi/l	kg/d			
k. Sulfate (*as SO_4*) (14808-79-8)	X		1430	179,941			1094	133,186	25	mg/l	kg/d			
l. Sulfide (*as S*)	X		2.9	352					1	mg/l	kg/d			
m. Sulfite (*as SO_3*) (14265-45-3)	X		< 1	< QL					1	mg/l	kg/d			
n. Surfactants	X		0.21	26					1	mg/l	kg/d			
o. Aluminum, Total (7429-90-5)	X		1.6	197					1	mg/l	kg/d			
p. Barium, Total (7440-39-3)	X		0.23	28					1	mg/l	kg/d			
q. Boron, Total (7440-42-8)	X		0.10	12					1	mg/l	kg/d			
r. Cobalt, Total (7440-48-4)	X		<0.001	<QL					1	mg/l	kg/d			
s. Iron, Total (7439-89-6)	X		0.14	17					1	mg/l	kg/d			
t. Magnesium, Total (7439-95-4)	X		9.8	1204					1	mg/l	kg/d			
u. Molybdenum, Total (7439-98-7)	X		0.013	1.6					1	mg/l	kg/d			
v. Manganese, Total (7439-96-5)	X		0.43	53					1	mg/l	kg/d			
w. Tin, Total (7440-31-5)	X		<0.01	<QL					1	mg/l	kg/d			
x. Titanium, Total (7440-32-6)	X		0.007	0.9					1	mg/l	kg/d			

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
VA0003646	003

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X	X		0.002	0.24					1	mg/l	kg/d			
2M. Arsenic, Total (7440-38-2)	X	X		0.006	0.74					1	mg/l	kg/d			
3M. Beryllium, Total (7440-41-7)	X	X		<0.001	<QL					1	mg/l	kg/d			
4M. Cadmium, Total (7440-43-9)	X	X		<0.001	<QL					1	mg/l	kg/d			
5M. Chromium, Total (7440-47-3)	X	X		0.003	0.37					1	mg/l	kg/d			
6M. Copper, Total (7440-50-8)	X	X		0.004	0.49					1	mg/l	kg/d			
7M. Lead, Total (7439-92-1)	X	X		<0.002	<QL					1	mg/l	kg/d			
8M. Mercury, Total (7439-97-6)	X	X		<0.0002	<QL					1	mg/l	kg/d			
9M. Nickel, Total (7440-02-0)	X	X		0.002	0.25					1	mg/l	kg/d			
10M. Selenium, Total (7782-49-2)	X	X		0.003	0.37					1	mg/l	kg/d			
11M. Silver, Total (7440-22-4)	X	X		<0.001	<QL					1	mg/l	kg/d			
12M. Thallium, Total (7440-28-0)	X	X		<0.001	<QL					1	mg/l	kg/d			
13M. Zinc, Total (7440-66-6)	X	X		<0.02	<QL					1	mg/l	kg/d			
14M. Cyanide, Total (57-12-5)	X	X		<0.005	<QL					1	mg/l	kg/d			
15M. Phenols, Total	X	X		0.062	7.6					1	mg/l	kg/d			
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)	X			DESCRIBE RESULTS Not Detected with a reporting limit of 10 pg/L; < 10 pg/L											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)	X	X		<100/<20	<QL					1	ug/l	kg/d			
2V. Acrylonitrile (107-13-1)	X	X		<75/<15	<QL					1	ug/l	kg/d			
3V. Benzene (71-43-2)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
4V. Bis (*Chloromethyl*) Ether (542-88-1)	X	X		<250/<50	<QL					1	ug/l	kg/d			
5V. Bromoform (75-25-2)	X	X		<5/<1.0	<QL					1	ug/l	kg/d			
6V. Carbon Tetrachloride (56-23-5)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
7V. Chlorobenzene (108-90-7)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
8V. Chlorodibromomethane (124-48-1)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
9V. Chloroethane (75-00-3)	X	X		<5/<1.0	<QL					1	ug/l	kg/d			
10V. 2-Chloroethylvinyl Ether (110-75-8)	X	X		<25/<5.0	<QL					1	ug/l	kg/d			
11V. Chloroform (67-66-3)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
12V. Dichlorobromomethane (75-27-4)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
13V. Dichlorodifluoromethane (75-71-8)	X	X		<5/<1.0	<QL					1	ug/l	kg/d			
14V. 1,1-Dichloroethane (75-34-3)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
15V. 1,2-Dichloroethane (107-06-2)	X	X		<5/<1.0	<QL					1	ug/l	kg/d			
16V. 1,1-Dichloroethylene (75-35-4)	X	X		<5/<1.0	<QL					1	ug/l	kg/d			
17V. 1,2-Dichloropropane (78-87-5)	X	X		<5/<1.0	<QL					1	ug/l	kg/d			
18V. 1,3-Dichloropropylene (542-75-6)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
19V. Ethylbenzene (100-41-4)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
20V. Methyl Bromide (74-83-9)	X	X		<10/<2.0	<QL					1	ug/l	kg/d			
21V. Methyl Chloride (74-87-3)	X	X		<10/<2.0	<QL					1	ug/l	kg/d			

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)	X	X		<10/<2.0	<QL					1	ug/l	kg/d			
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
24V. Tetrachloro-ethylene (127-18-4)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
25V. Toluene (108-88-3)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
27V. 1,1,1-Trichloro-ethane (71-55-6)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
28V. 1,1,2-Trichloro-ethane (79-00-5)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
29V Trichloro-ethylene (79-01-6)	X	X		<2/<0.5	<QL					1	ug/l	kg/d			
30V. Trichloro-fluoromethane (75-69-4)	X	X		<5/<1.0	<QL					1	ug/l	kg/d			
31V. Vinyl Chloride (75-01-4)	X	X		<5/<1.0	<QL					1	ug/l	kg/d			
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X	X		<10	<QL					2	ug/l	kg/d			
2A. 2,4-Dichloro-phenol (120-83-2)	X	X		<10	<QL					2	ug/l	kg/d			
3A. 2,4-Dimethyl-phenol (105-67-9)	X	X		<10	<QL					2	ug/l	kg/d			
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X	X		<10 / <5	<QL					2	ug/l	kg/d			
5A. 2,4-Dinitro-phenol (51-28-5)	X	X		<10	<QL					1	ug/l	kg/d			
6A. 2-Nitrophenol (88-75-5)	X	X		<10	<QL					1	ug/l	kg/d			
7A. 4-Nitrophenol (100-02-7)	X	X		<10	<QL					1	ug/l	kg/d			
8A. P-Chloro-M-Cresol (59-50-7)	X	X		<20 / <5	<QL					2	ug/l	kg/d			
9A. Pentachloro-phenol (87-86-5)	X	X		<10	<QL					2	ug/l	kg/d			
10A. Phenol (108-95-2)	X	X		<10	<QL					2	ug/l	kg/d			
11A. 2,4,6-Trichloro-phenol (88-05-2)	X	X		<10	<QL					2	ug/l	kg/d			

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X	X		<5	<QL					2	ug/l	kg/d			
2B. Acenaphtylene (208-96-8)	X	X		<5	<QL					1	ug/l	kg/d			
3B. Anthracene (120-12-7)	X	X		<5	<QL					2	ug/l	kg/d			
4B. Benzidine (92-87-5)	X	X		<50	<QL					2	ug/l	kg/d			
5B. Benzo (*a*) Anthracene (56-55-3)	X	X		<5	<QL					2	ug/l	kg/d			
6B. Benzo (*a*) Pyrene (50-32-8)	X	X		<5	<QL					2	ug/l	kg/d			
7B. 3,4-Benzo-fluoranthene (205-99-2)	X	X		<5	<QL					1	ug/l	kg/d			
8B. Benzo (*ghi*) Perylene (191-24-2)	X	X		<5	<QL					1	ug/l	kg/d			
9B. Benzo (*k*) Fluoranthene (207-08-9)	X	X		<5	<QL					2	ug/l	kg/d			
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)	X	X		<5	<QL					1	ug/l	kg/d			
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)	X	X		<5	<QL					2	ug/l	kg/d			
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)	X	X		<5	<QL					2	ug/l	kg/d			
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)	X	X		18*/<5	<QL					2	ug/l	kg/d			
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X	X		<5	<QL					1	ug/l	kg/d			
15B. Butyl Benzyl Phthalate (85-68-7)	X	X		<5	<QL					2	ug/l	kg/d			
16B. 2-Chloro-naphthalene (91-58-7)	X	X		<5	<QL					2	ug/l	kg/d			
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X	X		<5	<QL					1	ug/l	kg/d			
18B. Chrysene (218-01-9)	X	X		<5	<QL					2	ug/l	kg/d			
19B. Dibenzo (*a,h*) Anthracene (53-70-3)	X	X		<5	<QL					2	ug/l	kg/d			
20B. 1,2-Dichloro-benzene (95-50-1)	X	X		<5	<QL					2	ug/l	kg/d			
21B. 1,3-Di-chloro-benzene (541-73-1)	X	X		<5	<QL					2	ug/l	kg/d			

*Believed to be lab contamination

CONTINUE ON PAGE V-7

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlorobenzene (106-46-7)	X	X		<5	<QL					2	ug/l	kg/d			
23B. 3,3-Dichlorobenzidine (91-94-1)	X	X		<50	<QL					2	ug/l	kg/d			
24B. Diethyl Phthalate (84-66-2)	X	X		<5	<QL					2	ug/l	kg/d			
25B. Dimethyl Phthalate (131 -11-3)	X	X		<5	<QL					2	ug/l	kg/d			
26B. Di-N-Butyl Phthalate (84-74-2)	X	X		<5	<QL					2	ug/l	kg/d			
27B. 2,4-Dinitrotoluene (121-14-2)	X	X		<5	<QL					1	ug/l	kg/d			
28B. 2,6-Dinitrotoluene (606-20-2)	X	X		<5	<QL					1	ug/l	kg/d			
29B. Di-N-Octyl Phthalate (117-84-0)	X	X		<5	<QL					1	ug/l	kg/d			
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)	X	X		<5	<QL					1	ug/l	kg/d			
31B. Fluoranthene (206-44-0)	X	X		<5	<QL					2	ug/l	kg/d			
32B. Fluorene (86-73-7)	X	X		<5	<QL					2	ug/l	kg/d			
33B. Hexachlorobenzene (118-74-1)	X	X		<5	<QL					2	ug/l	kg/d			
34B. Hexachlorobutadiene (87-68-3)	X	X		<5	<QL					2	ug/l	kg/d			
35B. Hexachlorocyclopentadiene (77-47-4)	X	X		<20	<QL					2	ug/l	kg/d			
36B Hexachloroethane (67-72-1)	X	X		<5	<QL					2	ug/l	kg/d			
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)	X	X		<5	<QL					2	ug/l	kg/d			
38B. Isophorone (78-59-1)	X	X		<5	<QL					2	ug/l	kg/d			
39B. Naphthalene (91-20-3)	X	X		<5	<QL					1	ug/l	kg/d			
40B. Nitrobenzene (98-95-3)	X	X		<5	<QL					2	ug/l	kg/d			
41B. N-Nitrosodimethylamine (62-75-9)	X	X		<5	<QL					2	ug/l	kg/d			
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X	X		<5	<QL					2	ug/l	kg/d			

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitrosodiphenylamine (86-30-6)	X	X		<5	<QL					2	ug/l	kg/d			
44B. Phenanthrene (85-01-8)	X	X		<5	<QL					1	ug/l	kg/d			
45B. Pyrene (129-00-0)	X	X		<5	<QL					2	ug/l	kg/d			
46B. 1,2,4-Trichlorobenzene (120-82-1)	X	X		<5	<QL					2	ug/l	kg/d			
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)	X	X		<0.1	<QL					2	ug/l	kg/d			
2P. α-BHC (319-84-6)	X	X		<0.1	<QL					2	ug/l	kg/d			
3P. β-BHC (319-85-7)	X	X		<0.1	<QL					2	ug/l	kg/d			
4P. γ-BHC (58-89-9)	X	X		<0.1	<QL					2	ug/l	kg/d			
5P. δ-BHC (319-86-8)	X	X		<0.1	<QL					2	ug/l	kg/d			
6P. Chlordane (57-74-9)	X	X		<0.2	<QL					2	ug/l	kg/d			
7P. 4,4'-DDT (50-29-3)	X	X		<0.1	<QL					2	ug/l	kg/d			
8P. 4,4'-DDE (72-55-9)	X	X		<0.1	<QL					2	ug/l	kg/d			
9P. 4,4'-DDD (72-54-8)	X	X		<0.1	<QL					2	ug/l	kg/d			
10P. Dieldrin (60-57-1)	X	X		<0.1	<QL					2	ug/l	kg/d			
11P. α-Enosulfan (115-29-7)	X	X		<0.1	<QL					2	ug/l	kg/d			
12P. β-Endosulfan (115-29-7)	X	X		<0.1	<QL					2	ug/l	kg/d			
13P. Endosulfan Sulfate (1031-07-8)	X	X		<0.1	<QL					2	ug/l	kg/d			
14P. Endrin (72-20-8)	X	X		<0.1	<QL					2	ug/l	kg/d			
15P. Endrin Aldehyde (7421-93-4)	X	X		<0.1	<QL					2	ug/l	kg/d			
16P. Heptachlor (76-44-8)	X	X		<0.1	<QL					2	ug/l	kg/d			

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
VA0003646	003

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)	X	X		<0.1	<QL					2	ug/l	kg/d			
18P. PCB-1242 (53469-21-9)	X	X		<0.2	<QL					2	ug/l	kg/d			
19P. PCB-1254 (11097-69-1)	X	X		<0.2	<QL					2	ug/l	kg/d			
20P. PCB-1221 (11104-28-2)	X	X		<0.2	<QL					2	ug/l	kg/d			
21P. PCB-1232 (11141-16-5)	X	X		<0.2	<QL					2	ug/l	kg/d			
22P. PCB-1248 (12672-29-6)	X	X		<0.2	<QL					2	ug/l	kg/d			
23P. PCB-1260 (11096-82-5)	X	X		<0.2	<QL					2	ug/l	kg/d			
24P. PCB-1016 (12674-11-2)	X	X		<0.2	<QL					2	ug/l	kg/d			
25P. Toxaphene (8001-35-2)	X	X		<0.2	<QL					2	ug/l	kg/d			

Note: Data from stormwater Outfalls 003, 004, 005, 006, 007, 008, 009, 010, 012, 013, 015 is presented in EPA Form 3510 - 2F

Section

D

Please print or type in the unshaded areas only.

EPA ID Number (*copy from Item 1 of Form 1*)
VA 0003646

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

FORM 2F NPDES

U.S. Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number (*list*)	B. Latitude			C. Longitude			D. Receiving Water (*name*)
003	37	47'	58"	79	59'	40"	Jackson River
004	37	47'	50"	79	59'	50"	Dunlap Creek
005	37	48'	35"	79	59'	19"	Dry Run(tributary of Jackson River)
006	37	48'	31"	79	59'	37"	Jackson River
007	37	48'	32"	79	59'	40"	Jackson River
008	37	48'	32"	79	59'	41"	Jackson River
009	37	48'	25"	79	59'	52"	Jackson River
010	37	48'	24"	79	59'	57"	Jackson River
012	37	48'	26"	79	59'	43"	Jackson River
013 / 15	37/37	48'/47'	06"/42"	79/79	59'/59'	40"/41"	Jackson River / Jackson River

II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.
NA					

B: You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfalls(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage of disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which received storm water discharges from the facility.

Continued from the Front

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of imperious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface *(provide units)*	Total Area Drained *(provide units)*	Outfall Number	Area of Impervious Surface *(provide units)*	Total Area Drained *(provide units)*
	See Attached				

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas, and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

See Attached

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
	See Attached	

V. Nonstormwater Discharges

A. I certify under penalty of law hat the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharged from these outfall(s) are identified in either an accompanying Form 2C or From 2E application for the outfall.

Name and Official Title *(type or print)*	Signature	Date Signed
Gregory C Hansrote VP Cov Operations		7/13/14

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

See Attached

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

No significant leaks or spills have occurred during the last permit cycle that had the potential to come into contact with stormwater and be discharged through stormwater outfalls. There has been 1 unpermitted discharges from the facility during the last permit cycle. It was properly reported and was not a function of the stormwater management program.

EPA ID Number *(copy from Item 1 of Form 1)*
VA 0003646

VII. Discharge Information

A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.
Table VII-A, VII-B, VII-C are included on separate sheets numbers VII-1 and VII-2.

E. Potential discharges not covered by analysis – is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☑ Yes (*list all such pollutants below*) ☐ No (*go to Section IX*)

All of the items listed in these tables are substances potentially used or potentially manufactured coincidentally in the processes employed at the facility. However, other than the substances tested for, none would be expected to be present in detectable concentrations at a stormwater outfall. Many of these compounds are naturally occurring in the raw materials, wood, and coal, that are processed at the facility.

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes (*list all such pollutants below*) ☑ No (*go to Section IX*)

No biological testing has been conducted on the stormwater outfalls for this facility.

IX. Contract Analysis Information

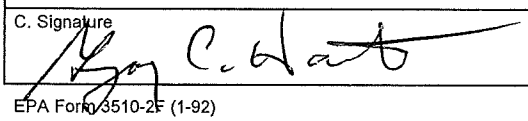
Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

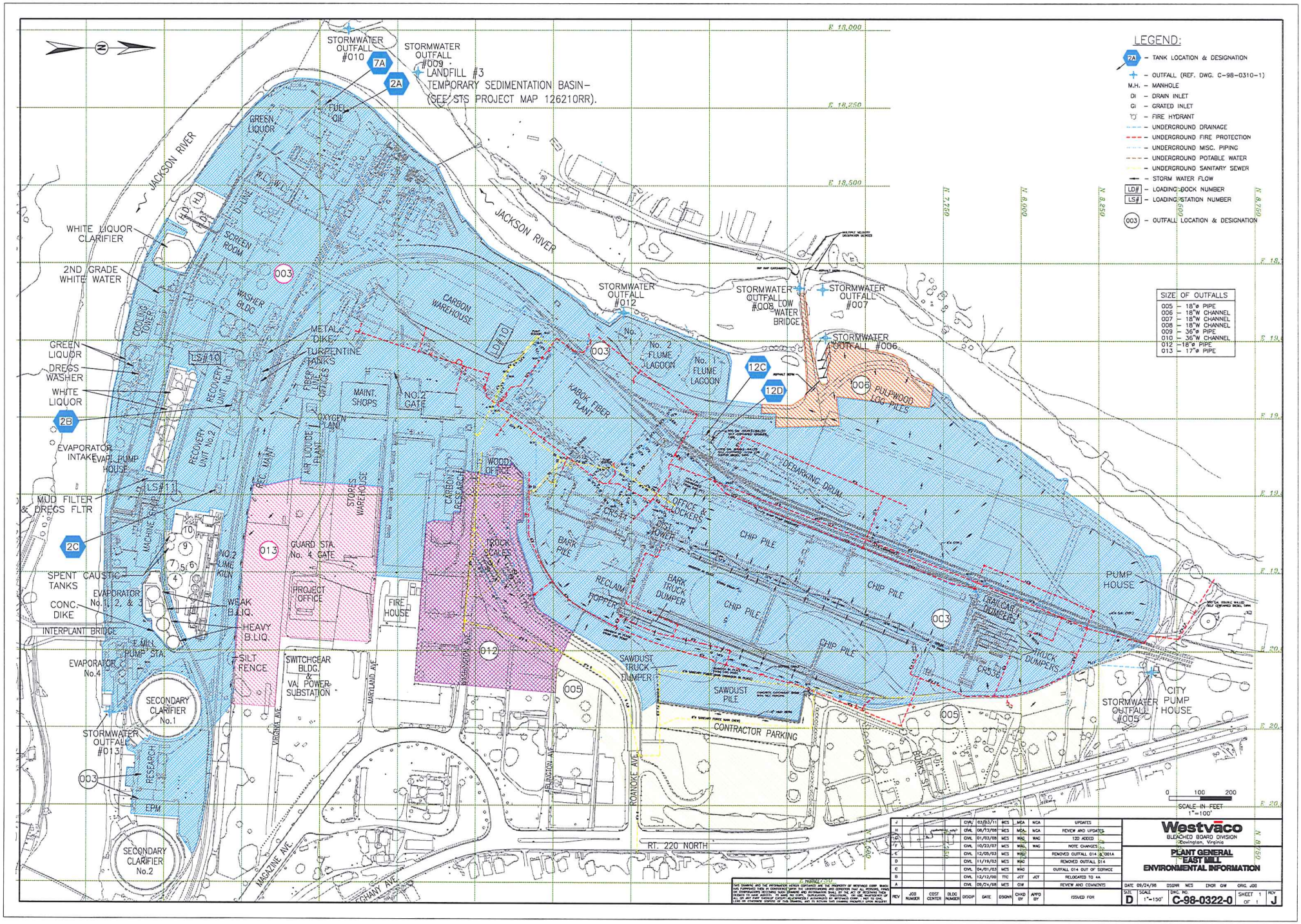
☑ Yes (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ No (*go to Section X*)

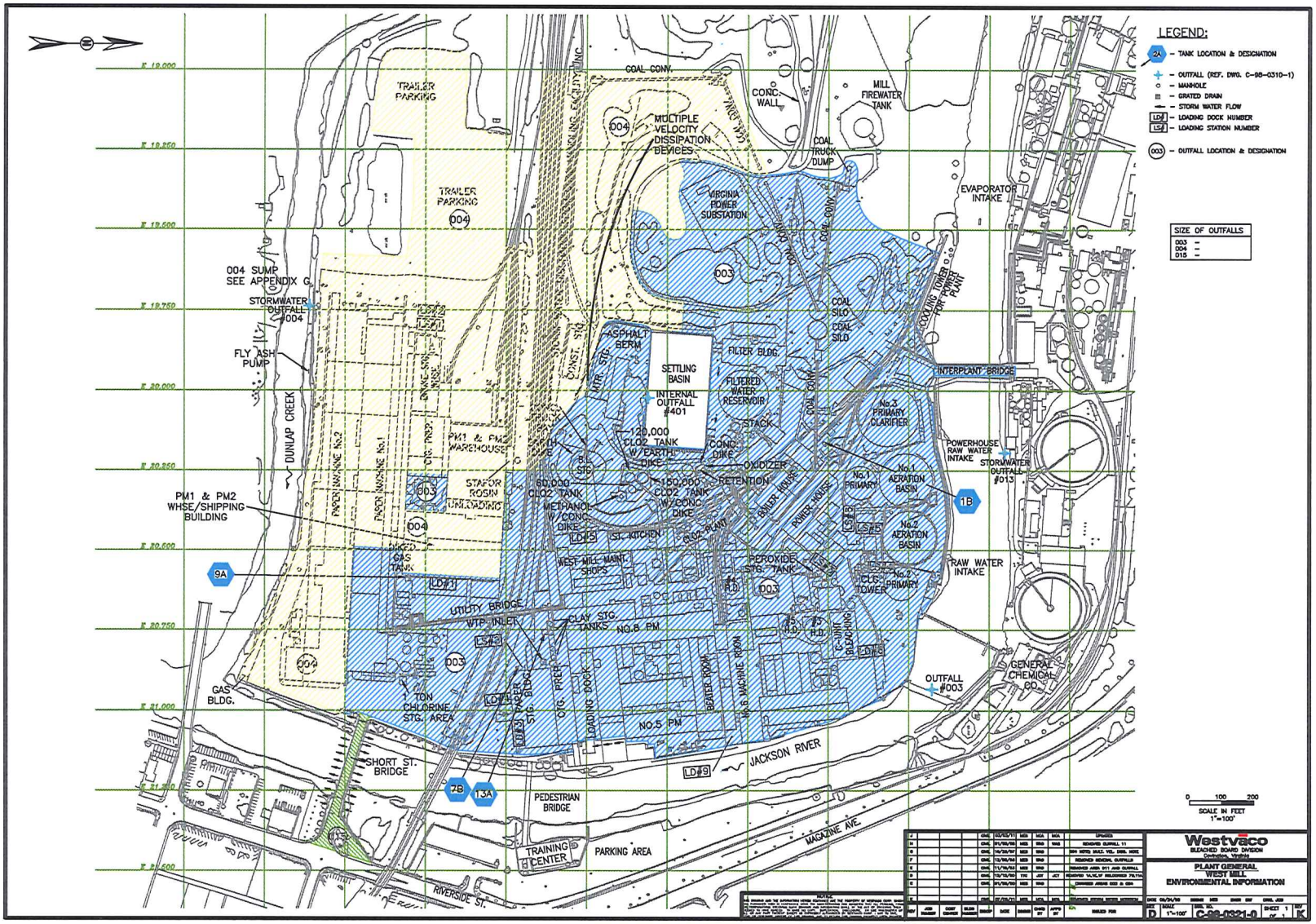
A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
MeadWestvaco Safety, Health, and Environmental Laboratory	965 Capstone Drive, Suite 219 Miamisburg, OH 45342	(937) 865-5529	Oil and Grease COD Nutrients Color

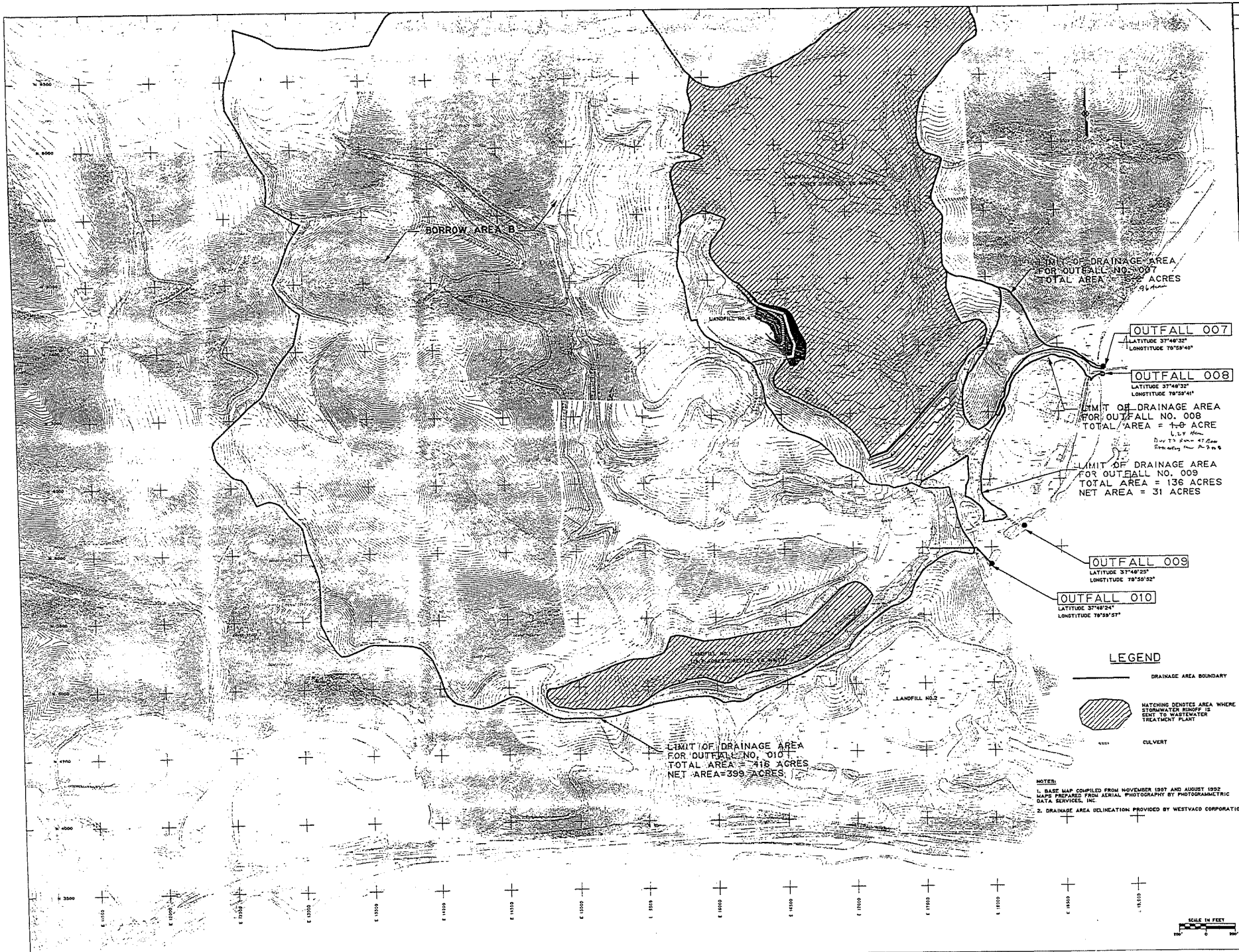
X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title (*Type Or Print*)	B. Area Code and Phone No.
Gregory C. Hansrote VP Covington Operations	(540) 969-5000
C. Signature 	D. Date Signed 7/13/4


LEGEND:
7A – TANK LOCATION & DESIGNATION
– OUTFALL (REF. DWG. C-98-0310-1)
M.H. – MANHOLE
DI – DRAIN INLET
GI – GRATED INLET
– FIRE HYDRANT
– UNDERGROUND DRAINAGE
– UNDERGROUND FIRE PROTECTION
– UNDERGROUND MISC. PIPING
– UNDERGROUND POTABLE WATER
– UNDERGROUND SANITARY SEWER
– STORM WATER FLOW
LD# – LOADING DOCK NUMBER
LS# – LOADING STATION NUMBER
003 – OUTFALL LOCATION & DESIGNATION
SIZE OF OUTFALLS
005 – 18"ø PIPE
006 – 18"W CHANNEL
007 – 18"W CHANNEL
008 – 18"W CHANNEL
009 – 36"ø PIPE
010 – 36"W CHANNEL
012 – 18"ø PIPE
013 – 17"ø PIPE
STORMWATER OUTFALL #010
STORMWATER OUTFALL #009
LANDFILL #3
TEMPORARY SEDIMENTATION BASIN–
(SEE STS PROJECT MAP 126210RR).
JACKSON RIVER
GREEN LIQUOR
FUEL OIL
WHITE LIQUOR CLARIFIER
2ND GRADE WHITE WATER
SCREEN ROOM
WASHER BLDG.
COOLING TOWER
CARBON WAREHOUSE
STORMWATER OUTFALL #012
STORMWATER OUTFALL #008
LOW WATER BRIDGE
STORMWATER OUTFALL #007
STORMWATER OUTFALL #006
METAL DIKE
TURPENTINE TANKS
FIBER LINE OFFICES
MAINT. SHOPS
NO.2 GATE
OXYGEN PLANT
No. 2 FLUME LAGOON
No. 1 FLUME LAGOON
KABOK FIBER PLANT
PULPWOOD LOG PILES
GREEN LIQUOR
DREGS WASHER
WHITE LIQUOR
EVAPORATOR INTAKE
EVAP. PUMP HOUSE
RECOVERY UNIT No.1
RECOVERY UNIT No.2
REC. PLANT
AIR LIQUIDE PLANT
STORES WAREHOUSE
WOOD OFFICE
DEBARKING DRUM
OFFICE & LOCKERS
DIST. TOWER
CHIP PILE
BARK PILE
RECLAIM HOPPER
BARK TRUCK DUMPER
TRAIN CAR DUMPERS
TRUCK DUMPERS
PUMP HOUSE
MUD FILTER & DREGS FLTR
MACHINE SHOP
GUARD STA. No. 4 GATE
ROCK SCALES
SPENT CAUSTIC TANKS
NO.2 LIME KILN
EVAPORATOR No.1, 2, & 3
CONC. DIKE
WEAK B.LIQ.
HEAVY B.LIQ.
PROJECT OFFICE
FIRE HOUSE
INTERPLANT BRIDGE
E. MILL PUMP STA.
SILT FENCE
SWITCHGEAR BLDG. & VA. POWER SUBSTATION
SAWDUST TRUCK DUMPER
SAWDUST PILE
CONTRACTOR PARKING
EVAPORATOR No.4
SECONDARY CLARIFIER No.1
STORMWATER OUTFALL #013
CITY PUMP HOUSE
STORMWATER OUTFALL #005
RESEARCH
EPM
SECONDARY CLARIFIER No.2
MARYLAND AVE.
VIRGINIA AVE.
ARLINGTON AVE.
ROANOKE AVE.
MAGAZINE AVE.
CHANEY AVE.
RT. 220 NORTH
E 18,000
E 18,250
E 18,500
N 8,750
N 9,000
N 9,250
SCALE IN FEET
1"=100'
Westvaco
BLEACHED BOARD DIVISION
Covington, Virginia
PLANT GENERAL
EAST MILL
ENVIRONMENTAL INFORMATION
DATE 09/24/98 DSGNR MCS ENGR GW ORG. JOB
SIZE D SCALE 1"=150' DWG. NO. C-98-0322-0 SHEET 1 OF 1 REV J
REV JOB NUMBER COST CENTER BLDG NUMBER DISCIP DATE DSGNR CHKD BY APPD BY ISSUED FOR
J CWL 03/03/11 MCS MCA MCA UPDATES
H CWL 08/13/08 MCS MCA MCA REVIEW AND UPDATES
G CWL 01/03/08 MCS MAC MAC 13D ADDED
F CWL 10/23/07 MCS MAC MAC NOTE CHANGES
E CWL 12/05/03 MCS MAC REMOVED OUTFALL 014 & 001A
D CWL 11/19/03 MCS MAC REMOVED OUTFALL 014
C CWL 04/01/03 MCS MAC OUTFALL 014 OUT OF SERVICE
B CWL 12/12/00 TTC JCT JCT RELOCATED TO 4A
A CWL 09/24/98 MCS GW REVIEW AND COMMENTS


LEGEND:
2A – TANK LOCATION & DESIGNATION
– OUTFALL (REF. DWG. C-98-0310-1)
– MANHOLE
– GRATED DRAIN
– STORM WATER FLOW
LD# – LOADING DOCK NUMBER
LS# – LOADING STATION NUMBER
003 – OUTFALL LOCATION & DESIGNATION
SIZE OF OUTFALLS
003 –
004 –
015 –
TRAILER PARKING
COAL CONV.
CONC. WALL
MILL FIREWATER TANK
MULTIPLE VELOCITY DISSIPATION DEVICES
COAL TRUCK DUMP
EVAPORATOR INTAKE
VIRGINIA POWER SUBSTATION
004 SUMP SEE APPENDIX G
STORMWATER OUTFALL #004
FLY ASH PUMP
DUNLAP CREEK
COOLING TOWER FOR POWER PLANT
COAL SILO
ASPHALT BERM
FILTER BLDG.
SETTLING BASIN
INTERNAL OUTFALL #401
INTERPLANT BRIDGE
FILTERED WATER RESERVOIR
No.3 PRIMARY CLARIFIER
STACK
120,000 CLO2 TANK W/EARTH DIKE
POWERHOUSE RAW WATER INTAKE
STORMWATER OUTFALL #013
PM1 & PM2 WAREHOUSE
OXIDIZER
No.1 PRIMARY
No.1 AERATION BASIN
PM1 & PM2 WHSE/SHIPPING BUILDING
STAFOR ROSIN UNLOADING
60,000 CLO2 TANK METHANOL W/CONC. DIKE
150,000 CLO2 TANK W/CONC. DIKE
RETENTION
BOILER HOUSE
POWER HOUSE
1B
ST. KITCHEN
No.2 AERATION BASIN
9A
GAS TANK
WEST MILL MAINT. SHOPS
PEROXIDE STG. TANK
RAW WATER INTAKE
No.2 PRIMARY
CLO2 TOWER
UTILITY BRIDGE
WTP INLET
CLAY STG. TANKS
NO.8 PM
C-1 UNIT BLDG.
GENERAL CHEMICAL CO.
OUTFALL #003
GAS BLDG.
1 TON CHLORINE STG. AREA
STG. TOWER
STG. BLDG.
OFF. PREP.
LOADING DOCK
NO.5 PM
BOILER ROOM
NO.6 MACHINE ROOM
SHORT ST. BRIDGE
JACKSON RIVER
7B
13A
PEDESTRIAN BRIDGE
TRAINING CENTER
PARKING AREA
MACHINE AVE.
RIVERSIDE ST.
SCALE IN FEET
1"=100'
Westvaco
BLEACHED BOARD DIVISION
Covington, Virginia
PLANT GENERAL
WEST MILL
ENVIRONMENTAL INFORMATION
DWG. NO. C-98-0321-0
SHEET 1 OF 1
REV K



OUTFALL DRAINAGE MAP
STORMWATER POLLUTION PREVENTION PLAN
WESTVACO CORPORATION
COVINGTON, VIRGINIA

STS Consultants, Ltd.
Consulting Engineers

STS PROJECT NUMBER
9923AAJ
STS PROJECT FILE
SCALE
AS SHOWN
SHEET NUMBER
1

Form 2F Section IV A Size and Runoff Characteristics of Drainage Areas

The following table provides estimates of the size of the drainage areas for the various stormwater outfalls.

Drainage Area	Impervious Area (square ft.)	Impervious Area (acres)	Total Area (square ft.)	Total Area (acres)
003	3,452,100	79.25	11,489,500	263.76
004	615,600	14.13	684,720	15.72
005	255,000	5.85	859,000	19.72
006	17,400	0.40	90,170	2.07
007	20,000	0.46	41,780	0.96
008	25,000	0.57	271,850	6.24
009	32,000	0.73	1,350,360	31.00
010	48,000	1.10	17,380,440	399.00
012	64,000	1.47	244,000	5.60
013	50,000	1.15	297,000	6.82
015	19,376	0.44	19,376	0.44
TOTAL	4,598,476	105.55	32,728,196	751.33

Form 2F Section IV B Inventory of Exposed Materials

The following is an inventory of the types of materials handled at the site that are **potentially** exposed to precipitation. This inventory includes a narrative description of significant materials that have been handled, treated, stored, or disposed of in a manner to allow exposure to storm water between the time of three years prior to the effective date of the permit and the present, i.e., since February 13, 2004; method and location of on-site storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff between the time of three years prior to the effective date of the permit and the present, i.e., since February 13, 2004; the location and a description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

Since August 5, 1992, coal has been received through a coal unloading system operated by Coal Handling Facility, Inc. and located west of the Boiler House. Coal is received by rail cars and unloaded by a car dumper located off of the CSX main line along Dunlap Creek. The coal is conveyed from the car dumper to two concrete coal silos. Coal may also be received by truck through No. 6 Gate, unloaded at the truck unloading hopper, and conveyed directly to the boiler house coal bunkers. All of the storm water discharges from the coal unloading area are permitted and managed by the operator, Coal Handling Facility, Inc. Storm water runoff from this area discharges through Coal Handling outfalls and through outfall 004 to Dunlap Creek and the Wastewater Treatment Plant to the Jackson River.

Pulpwood bark and pulpwood waste used to be stored with sawdust in a pile on the ground near No. 1 Aeration Basin. Since the construction of No.3 Primary Clarifier in 1997 this pile was relocated on the ground near the bark processor on the Woodyard. The bark and wood waste are loaded into dump trucks by conveyors at the Woodyard and hauled on mill roads to the storage hoppers at the boiler house. Storm water runoff from the bark storage pile and the mill roads between the Woodyard and the storage hoppers drains to a sewer to the Wastewater Treatment Plant.

Sawdust is stored in the sawdust storage pile located adjacent to the Contractors' lay down area that is across the low water bridge. Also, a small sawdust pile for emergency use is stored adjacent to the Woodyard lagoons. Sawdust is also received by truck through the Woodyard gate, hauled to this storage pile , dumped onto the pile, loaded into dump trucks by a bucket loader, hauled to the Carbon Plant, and unloaded onto a conveyor. Storm water runoff from the sawdust storage pile and handling activities associated with it would not be discharged through any outfall. Storm water runoff from access roads to the sawdust pile may drain to outfall 006, outfall 007, or outfall 008. Runoff from the small sawdust pile may drain to outfall 006.

Pulpwood logs are stored in piles on the ground on the Woodyard. The logs are unloaded from trucks and railcars by fork truck and placed in piles. The logs are later removed from the piles by fork truck and placed on the saw deck. Most of the storm water from the log storage and handling areas, the truck access roads, and the rail spur drains to the Woodyard lagoons and is then pumped to the Wastewater Treatment Plant. Part of the storm water runoff from these areas drains to outfall 006.

Pulpwood chips are stored in piles on the ground on the Woodyard. The chips are dumped onto the chip storage piles by the chip stacker, removed from the piles by the chip reclaimer, and transported by conveyor to the Screen House. Chips are also received by truck through the Woodyard gate and dumped onto conveyors on the Woodyard and at the Screen House. Storm water runoff from the chip storage and handling areas and access roads drains to a sewer to the Wastewater Treatment Plant or drains to the Woodyard lagoons and is then pumped to the Wastewater Treatment Plant.

Spent carbon used to be stored in earthen impoundments located across the Jackson River from the Woodyard. These impoundments are no longer in use. Most of the storm water is contained within these impoundments, although some runoff may drain to the sedimentation pond associated with outfall 009.

The following materials are disposed of in onsite landfills:

Wastewater Treatment Plant sludge is dewatered on screw presses and belt filter presses at the Wastewater Treatment Plant, loaded into dump trucks by conveyor, hauled to MeadWestvaco Landfills on mill roads, dumped on the ground, mixed with stabilizing fill material by a track loader, and pushed into the active fill area. Storm water runoff from the truck loading area drains to a sewer to the Wastewater Treatment Plant.

Occasionally, some sludge is temporarily stored in piles on the Woodyard whenever the sludge cannot be hauled safely to the landfill. The sludge is stored only in areas of the Woodyard where the storm water runoff drains to the Woodyard lagoons and is then pumped to the Wastewater Treatment Plant. As soon as practicable, the sludge is loaded into dump trucks by a bucket loader and hauled to the landfill for disposal. Other areas include a dedicated dewatering slab used for dewatering wet materials and also at #3 clarifier where all runoff goes to the Wastewater Treatment Plant.

Pulpwood waste is loaded into dump trucks by conveyor or bucket loader at the Woodyard, hauled to onsite landfills on mill roads, and disposed of in the active fill area. Storm water runoff from the truck loading areas drains to the Woodyard lagoons and is then pumped to the Wastewater Treatment Plant.

General refuse is collected in dumpster buckets and trash hoppers located throughout the mill site. These containers are routinely hauled to onsite landfills on mill roads and emptied in the active fill area.

Trash pan containers located at No. 1 Paper Machine Building and the Paper Storage Building are also routinely hauled to onsite landfills on mill roads and emptied in the active fill area. Trash is also loaded onto trucks and hauled to MeadWestvaco Landfills for disposal.

Storm water runoff from most of the outdoor container areas drains to a sewer to the Wastewater Treatment Plant. Dumpster buckets are also located in the drainage area for outfall 004.

Bottom ash from the coal and wood-fired power boilers is discharged into a dump truck inside the Boiler House. The ash is drained of any free water before the truck leaves the Boiler House.

Normally **knots** from A, C, or D line go to a blower system, then to a chip silo and are finally re-cooked. In the event of problems in equipment like the blower system or the knot press, knots from either line can be sent directly to a dumpster. Knots are taken to a concrete "spill pad" by the No. 2 Green Liquor Tank before they can be taken to the landfill. Storm water runoff from all concrete pads and the dumpster area drains to sewers to the Wastewater Treatment Plant.

Dregs from the lime mud washing operations are dewatered on vacuum filters or centrifuges at the Mud Filter Building and discharged into dump trucks. Storm water runoff from the truck loading area drains to a sewer to the Wastewater Treatment Plant.

Grits from the lime slakers are discharged into a steel stationary roll-off container. The container is lined with sawdust prior to filling in order to absorb any free liquid present in the grits. Another option is to transport the grits to the dewatering slab and let dewater prior to transport to the landfill. Storm water runoff from the container area drains to a sewer to the Wastewater Treatment Plant.

Normally, these materials are hauled to the Woodyard on mill roads, across the low water bridge across the Jackson River, and up the access road to either No. 1, No. 3 or No. 5 Landfill. Storm water runoff from the roads along this route drains to the Wastewater Treatment Plant and to outfalls 006, 007, 008, and 009. An alternate route to the landfills follows the mill road between the Bates Building and the electrical motor storage building, around the Virginia Power substation, up to the fly ash settling basin area, around the west side of No. 2 Landfill, along the south side of No. 1 Landfill, across No. 1 Fly Ash Dam, and connecting to the access road to No. 3 Landfill. Storm water runoff from the roads along this secondary route drains to the Wastewater Treatment Plant; Coal Handling Facility's outfalls 001, 002, 003, 004, and 005; No. 2 Landfill; No. 1 Landfill; and outfalls 004, 009, and 010. Storm water runoff from the active landfill area drains to a collection pond and is then pumped to the Wastewater Treatment Plant. Storm water runoff from the upper access road in the active landfill area is diverted to the collection pond.

No materials disposed of in MeadWestvaco Landfills are allowed to contain any free liquids. Spills of any material being transported to the landfill are cleaned up as soon as practicable in order to minimize their exposure to storm water.

Fly ash collected by electrostatic precipitators on all of the coal and wood-fired boilers is slurried with water and pumped to one of two 600,000-gallon primary settling basins located near No. 2 Landfill. The overflow (decanted water) from the primary basins drains to the Waste Treatment Plant. Should the decant line become plugged, decanted water from the primary settling basin will flow into a 400,000-gallon secondary settling basin. The overflow from the secondary basin drains to the Wastewater Treatment Plant. The settled fly ash is pumped from the primary settling basins, dewatered on belt filter presses, loaded into trucks by conveyor, hauled either to a staging area or No. 1 Landfill, on mill roads, and disposed of in the landfill. Spills of fly ash being transported to the landfill are cleaned up as soon as practicable in order to minimize their exposure to storm water. The fly ash and bottom ash slurry is pumped through aboveground pipelines from the precipitators to the primary settling basins. Storm water runoff from the area along these lines drains to the Wastewater Treatment Plant. A concrete wall

diverts runoff from the area along the upper portion of the pipeline, from the coal conveyor tunnel up to the settling basins, to the Wastewater Treatment Plant and away from outfall 004.

Storm water runoff from the fly ash settling basin areas drains into the basins and ultimately flows to the Wastewater Treatment Plant. Storm water runoff from the area around the belt filter press building and the truck loading area drains to the settling basins and to No. 2 Landfill. The leachate collected from No. 2 Landfill drains to the Wastewater Treatment Plant. Storm water runoff from the access road from the truck loading area to No.1 Landfill drains to No. 2 Landfill, No. 1 Landfill, and outfall 010. Storm water runoff from the active fill area of No.1 Landfill is collected and drains to the Wastewater Treatment Plant.

Lime mud is dewatered on vacuum filters or centrifuges at the mud filter building. Then it is normally burned in the No. 2 Lime Kiln. Occasionally, however, the lime mud may be hauled to No. 2 Landfill on mill roads, and placed in the active fill area. In this case, the lime mud trucks would travel across the low water bridge across the Jackson River, up the access road to No. 3 Landfill, across No. 1 Fly Ash Dam, along the south side of No. 1 Landfill, and around the east side of No. 2 Landfill. Storm water runoff from the roads along this route drains to the Wastewater Treatment Plant, No. 1 Landfill, No. 2 Landfill, and outfalls 006, 007, 008, and 009. Storm water runoff from the truck loading area drains to a sewer to the Wastewater Treatment Plant. An alternate route is across the interplant bridge, through the tunnel along the Jackson River, up the road between the Bates Building and the electrical motor storage building, around the Virginia Power substation, up to the fly ash settling area, and around to No. 2 Landfill. Storm water runoff from the roads along this route drains to the Wastewater Treatment Plant, Coal Handling Facility's outfalls 001, 002, 003, 004, and 005, No. 2 Landfill, and outfall 004. The leachate collected from No. 2 Landfill drains to the Wastewater Treatment Plant. Storm water runoff from the active fill area of No. 1 Landfill is collected and drains to the Wastewater Treatment Plant. Spills of lime mud being transported to the landfill are cleaned up as soon as practicable in order to minimize their exposure to storm water.

Water-based defoamer is stored in an 8,000-gallon aboveground steel tank which has a concrete secondary containment dike. This tank is located adjacent to the No. 1 Secondary Clarifier Pump House and feeds metering pumps which add defoamer to the clarifier effluent. This tank is filled by a supplier delivery truck. Authorization to unload is given by the Waste Treatment Plant Foreman after the tank level is verified. Storm water runoff from the tank area drains to the Wastewater Treatment Plant and is discharged through permitted outfall 003.

Bleached paperboard rolls are loaded into and unloaded from trucks outdoors at the loading docks at the No. 1 Paper Machine Warehouse Building, paper storage building, and No. 2 Paper Machine Building. Storm water runoff from the loading dock areas on the east side of the No. 1 Paper Machine Warehouse Building and at the paper storage building drains to a sewer to the Wastewater Treatment Plant. Storm water runoff from the loading dock areas on the west side of the No. 1 Paper Machine Warehouse Building and at No. 2 Paper Machine Building drains to outfall 004.

Various types of **petroleum products** are stored in tanks outdoors at locations throughout the mill. All of these tanks are equipped with secondary containment. An effort has been made to locate these tanks in areas that drain to the Waste Treatment Plant and then to 003 outfall. However, some small tanks are located in areas where runoff would be directed to storm water outfalls. These tanks are inspected on a routine basis and adequate spill response materials are readily available in the event of a leak. A full description and treatment of all these tanks may be found in the SPCC Plan and the ODC Plan for this facility.

A flat bed truck with tote bins is used to haul used oil from pick-up points throughout the facility to the Recovery Fuel Oil Bulk Storage Tank. This truck is parked in a Wastewater Treatment Plant drainage area when not in use.

Motor-powered vehicles and equipment are operated throughout the facility in all of the storm water drainage areas. These vehicles and equipment carry motor oil, hydraulic oil, antifreeze/coolant, transmission fluid, grease, brake fluid, power steering fluid, and other fluids which could potentially be leaked or spilled. Any spills or leaks of these materials are cleaned up as soon as practicable in order to minimize their exposure to storm water. All of these vehicles and equipment are maintained by this facility's Maintenance Department, including preventive maintenance in order to minimize leaks of these materials.

A mixture of some or all of the following materials: **gravel and salt or other ice melting agents**, is stored outdoors in a pile located between the railroad tracks and the trailer parking lot to the west of the Nos. 1 and 2 Paper Machines Warehouse. Runoff from this area drains to the storm water sewer, is then pumped to the ground floor U-drain system of No. 2 Paper Machine and subsequently pumped to the Waste Treatment Plant. This material is covered with a plastic sheet until needed (per Part I. D. 8). A berm is positioned adjacent to the pile to provide secondary containment. This mixture is broadcast by a truck mounted spreader throughout the facility to melt snow and ice during the winter months. Salt and ice melt is also spread by hand onto paved areas and sidewalks throughout the facility.

Black liquor leachate is collected in a pit at the south side of the road across from No. 2 Paper Machine approximately two thirds of the way from the wet end of the machine. A sump pump in the collection pit pumps the black liquor leachate through a 3" diameter pipe that runs above ground along the creek toward the dry end of the machine. Then this

line turns around and is located underground behind Nos. 1 and 2 Paper Machines. As it turns, it joins with a 16" diameter fly ash leachate line.

Fly ash leachate is collected at the fly ash landfill and flows by gravity to this point. An 8" line takes the black liquor leachate and the fly ash leachate behind the Nos. 1 and 2 Paper Machines, turns east and travels aboveground through the basement of No. 1 Paper Machine to the Spill Collection Tank at the Tank Farm by the northeast corner of the No. 1 Paper Machine. The portion of the line between the pump and the point, southwest corner of the machine, where the line goes aboveground offers a potential for spills of leachate going to Dunlap Creek. Storm water runoff from the area along the above ground leachate line drains to outfall 004 and to the Waste Treatment Plant.

Stafor rosin is unloaded from rail cars at the rosin rail car unloading station found north of the Nos. 1 & 2 Paper Machines Warehouse, between the warehouse and the CSX main line. A containment area has been provided to prevent the Stafor rosin from being discharged to the storm drain located west of the unloading station. Sewer lines under the unloading area direct any spill from a rail tank car to the spill containment area. This containment area has a total capacity of 42,000 gallons. This containment area is pumped to the mills sewer system as needed. Storm water run-off from the unloading station drains to outfall 004 and to the Waste Treatment Plant.

In 1999, a concrete sump was installed to prevent leaks and spills from entering Dunlap Creek. The sump is equipped with a concrete baffle wall, a pump, and level indicators. The system is designed to automatically route storm water to Dunlap Creek and non storm water to the Waste Treatment Plant. During non storm events, if the level reaches a certain point, the level alarm will turn the sump pump on. The pump will then pump the water to the No. 2 Paper Machine basement where it can then be sent to the Waste Treatment Plant. During storm events, the water will collect in the sump and eventually overflow the baffle wall and discharge into Dunlap Creek. A drawing of this system is included in Appendix G(Storm Water Plan).

All storm water runoff which drains to a sewer to the Wastewater Treatment Plant is treated along with the facility's process wastewater. For a description of the plant, see Appendix A(Storm Water Plan). The discharge from the plant through outfall 003 is authorized by VPDES Permit No. VA0003646 and subject to the limitations and conditions in the permit.

This includes storm water that is directed from the Carbon Plant to the Waste Treatment Plant through mill sewers. Process wastewater flows from the Carbon Plant are also authorized discharges through outfall 003 by VDPES Permit No. VA0003646 and subject to the limitations and conditions of the permit.

Items IV C

Stormwater Outfall 003

The drainage area for Outfall 003 includes the major portions of the facility where stormwater may come into contact with industrial activity. Stormwater collected from sawdust, log, chip, and bark storage are collected in the woodyard lagoons and pumped to the waste treatment plant. Stormwater runoff from the active areas of the landfills is collected and pumped to the waste treatment plant. Portions of the facility susceptible to spills and leaks from industrial equipment are contained within the facility by a river wall. This wall also contains stormwater runoff in these areas so that the water may be treated in the waste treatment plant. Spill containment and clean-up capabilities in the event of a spill are included in the SWPPP.

Stormwater Outfall 004

The drainage area for Outfall 004 includes runoff from portions of landfill haul roads. No. 1 and No. 2 Paper Machine roof tops, the paper mill truck parking lot and portions of the drainage area from the Coal Handling facility. Runoff from these areas would include silt, road dust, and motor vehicle leaks. Runoff may also include materials collected on the rooftops of the paper machines such as paper dust and steam condensate. Runoff from these areas is normally contained in this area and pumped to the waste treatment plant. However, during high rainfall events, the water may be discharged directly to Dunlap Creek. The area included in the drainage area for this outfall includes a number of process tanks which are fully diked to prevent a spill from coming into contact with stormwater. Spill containment and clean-up capabilities in the event of a spill are included in the SWPPP. No treatment of stormwater is performed for this outfall.

Stormwater Outfall 005

The drainage area for Outfall 005 includes stormwater runoff from the hillside east of the woodyard. The stormwater is collected and is conveyed by pipe to the outfall before coming into contact with any of the industrial activities in the area. Spill containment and clean-up capabilities in the event of a spill are included in the SWPPP. A catch basin has been installed to capture some sediment that may enter this outfall. No other treatment of stormwater is performed for this outfall.

Stormwater Outfall 006

The drainage area for Outfall 006 includes a portion of the landfill haul roads and the woodyard road. Wood and sawdust may be stored within this drainage area that could come into contact with stormwater. Stormwater runoff comes into contact with no other industrial activities before discharge to the outfall. Spill containment and clean-up capabilities in the event of a spill are included in the SWPPP. Silt fencing is in place to capture sediment from this area. No other treatment of stormwater is performed for this outfall.

Stormwater Outfall 007, 008, 009 010

The drainage area for these outfalls includes a portion of the landfill haul roads and a portion of the stormwater runoff from the areas surrounding the landfills. Stormwater is diverted from the active sites for the landfills to a collection pond where it is pumped to the Waste Treatment Plant. Sedimentation ponds have been installed for the drainage areas associated with outfalls 009 and 010. Spill containment and clean-up capabilities in the event of a spill are included in the SWPPP. A number of check dams have been installed in ditches conveying stormwater for outfall 007 and 008. In addition, vegetation has been allowed to grow in these ditches to help capture sediment. No other treatment of stormwater is performed for this outfall.

Stormwater Outfall 012

The drainage area for Outfall 012 includes runoff from the employee parking lots and the entrance to the woodyard. Stormwater from this area is collected and piped to the outfall without coming into contact with other industrial activity. Spill containment and clean-up capabilities in the event of a spill are included in the SWPPP. No treatment of stormwater is performed for this outfall.

Stormwater Outfall 013

The drainage area for Outfall 013 includes the hillside north of the recovery area within the mill. The area includes a portion of the mill road. Stormwater is collected in a ditch and then piped to the outfall without coming into contact with other industrial activity. Silt fencing has been installed and vegetation has been allowed to grow in the area to capture and remove sediment. Spill containment and clean-up capabilities in the event of a spill are included in the SWPPP. No other treatment of stormwater is performed for this outfall.

Stormwater Outfall 015

The drainage area for Outfall 015 includes the Short Street Bridge. This bridge is the access point to half of the facility. Truck traffic is routine in the area. Stormwater flows directly from the bridge. Spill containment and clean-up capabilities in the event of a spill are included in the SWPPP. No treatment of stormwater is performed for this outfall.

Herbicides and Pesticides

The following non selective and selective herbicide formulations are used at the facility. All herbicides and pesticides are applied by licensed contractors. All the herbicides used are biodegradable. The herbicides are applied by hand spraying and high volume power spraying. Herbicides are applied at various sites within the mill and are applied typically at various times throughout the year.

Pesticides are used within the mill on an as needed basis. The herbicides and pesticides used and the active ingredients are as listed following:

Herbicide	Active Ingredients
CWC Blueprint Plus	Nonionic Polymeric Colorant (No Hazardous Components)
Diuron 80 DFMN	Diuron [3-(3,4-dichlorophenyl)-1,1-dimethylurea]
Glyphomate 41 (Gly Pro Plus)	Glyphosate: N-(phosphonomethyl) glycine
Karmax DF, XP (using XP)	Diuron [3-(3,4-dichlorophenyl)-1,1-dimethylurea]
Landmark II MP	Sulfometuron methyl {Methyl-2[[[[(4,6-dimethyl-2-pyrimidinyl)amino]-carbonyl]amino]sulfonyl]benzoate, Chlorosulfuron 2-Chloro-N-[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)aminocarbonyl]benzenesulfonamide
Ranger Pro (possible alt. to Razor Pro)	Glyphosphate, N,-(phosphonomethyl) glycine
Razor Pro	Glyphosphate, N,-(phosphonomethyl) glycine
Roundup Pro	Glyphosphate, N,-(phosphonomethyl) glycine

Pesticide	Active Ingredients
Advion Coachroach Gel	Abamectin B_1
Contrac Blox	3-[3-(4-Bromo-[1,1-biphenyl]-4-yl)-3-hydroxy-1-phenylpropyl]-hydroxy-2H-1-benzopyran-2-one
Intice Granular Bait	Orthoboric Acid
Phantom T.I.	Chlorofenapyr: 4-bromo-2-(4-chlorophenyl)-1-(ethoxymethyl)-5-(trifluoromethyl)-1H-pyrrole-3-carbonitrile
PT P.I.	Pyrethrins, Piperoxyl Butoxide
PT Propoxur Bait	Propoxur,2-(1-Methylethoxy) phenol methylcarbamate
Suspend SC	Deltamethrin
Whole Kernel Corn	4-Aminopyridine

Form 2F Item VB

The following sources of non-stormwater may be present and combined with stormwater discharges associated with industrial activity: discharges from fire fighting activities; fire hydrant flushing; potable water sources including waterline flushing; irrigation drainage; lawn watering, routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents. Steam condensate and filtered water may also be discharged.

Two outfalls, 010 and 012, commonly have discharges of uncontaminated ground water. Investigations have been made of these discharges to confirm that they are not a result of wastewater from the site. Results of these past tests are provided below:

	Discharge from 010	Discharge from 012
pH	7.62	7.91
Temperature	18.9 C	20.7 C
BOD	> 22 mg/l*	< 5mg/l
COD	10 mg/l	< 5 mg/l
TSS	2.6 mg/l	1.8 mg/l
Phosphorus	< 0.1 mg/l	< 0.1 mg/l

Note: It is believed that this test is invalid. The dilutions set-up all depleted, but the other parameters measured do not support this result. Further samples are being collected.

Stormwater inspections are performed as required from the Stormwater Pollution Prevention Plan. These inspections include observations of the individual outfalls to determine that no other discharges are present. No other discharges associated with industrial activity have been noted from these inspections.